



January 24, 2007

**STL Sacramento**  
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West Sacramento, CA 95605

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**STL SACRAMENTO PROJECT NUMBER: G6L220174**  
PO/CONTRACT: 129682.001/Event 116

Guy Graening  
Brown and Caldwell  
10540 White Rock Road  
Suite 180  
Rancho Cordova, CA 95670

Dear Mr. Graening,

This report contains the analytical results for the samples received under chain of custody by STL Sacramento on December 22, 2006. These samples are associated with your 21243 project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4384.

Sincerely,

A handwritten signature in black ink, appearing to read "Karen Dahl".

Karen Dahl  
Project Manager

## Kocsis, Susie

---

**From:** Kocsis, Susie  
**Sent:** Wednesday, March 07, 2007 2:50 PM  
**To:** 'Dahl, Karen'; 'Adam, Sherry'  
**Cc:** Graening, Guy  
**Subject:** Yerington Air sample name changes

Karen and Sherryl,

I just noticed that a few of the samples were named wrong on the chain of custody forms. Would you please update your system with the correct names? I will make the changes on my end - no resubmittals needed.

Even 115:

Sample P-0582 is supposed to be 000582.

Event 116:

Samples P-0583, P-0584, P-0585 are supposed to be 000583, 000584, 000585, respectively.

Thank you and let me know if you have any questions,

susie

*Susie Kocsis  
Data Manager  
Brown and Caldwell  
10540 White Rock Road, Suite 180  
Rancho Cordova, CA 95670  
(916) 853-5350*

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AIR, TSP

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## CASE NARRATIVE

### STL SACRAMENTO PROJECT NUMBER G6L220174

#### **AIR, 6020, Metals**

Sample(s): 1, 2, 3, 4

The laboratory control sample duplicate showed a slightly low recovery for selenium. The laboratory control sample was re-analyzed and it met acceptance criteria. Note: The re-analysis of the laboratory control sample duplicate was not bracketed by the low level standard or by an ICSA/ICSAB pair.

#### **AIR, PM-10**

The final weight for sample 1 was less than its initial weight so the result has been reported as 'ND'.

There were no other anomalies associated with this project.

## STL Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon*	CA 200005
Arizona	AZ0616	Pennsylvania	68-1272
Arkansas	04-067-0	South Carolina	87014002
California*	01119CA	Texas	TX 270-2004A
Colorado	NA	Utah*	QUAN1
Connecticut	PH-0691	Virginia	00178
Florida*	E87570	Washington	C087
Georgia	960	West Virginia	9930C, 334
Hawaii	NA	Wisconsin	998204680
Louisiana*	01944	NFESC	NA
Michigan	9947	USACE	NA
Nevada	CA44	USDA Foreign Plant	37-82605
New Jersey*	CA005	USDA Foreign Soil	S-46613
New York*	11666		

\*NELAP accredited. A more detailed parameter list is available upon request. Update 1/27/05

## QC Parameter Definitions

**QC Batch:** The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

**Method Blank:** An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

**Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD):** An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

**Duplicate Sample (DU):** Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

**Surrogates:** Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

**Matrix Spike and Matrix Spike Duplicate (MS/MSD):** An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

**Isotope Dilution:** For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

**Control Limits:** The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

# Sample Summary

## G6L220174

<u>WO#</u>	<u>Sample #</u>	<u>Client Sample ID</u>	<u>Sampling Date</u>	<u>Received Date</u>
JL2G1	1	P-0825	12/19/2006 09:42 AM	12/22/2006 10:00 AM
JL2HC	2	000583	12/19/2006 10:03 AM	12/22/2006 10:00 AM
JL2HF	3	000584	12/19/2006 10:23 AM	12/22/2006 10:00 AM
JL2HH	4	000585	12/19/2006 10:29 AM	12/22/2006 10:00 AM

### Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight

BROWN AND CALDWELL

**CHAIN OF CUSTODY RECORD**

COC No:

3264 Goni Road / Suite 153  
Carson City, NV 89706  
775-883-4118 / FAX 775-883-5108

4425 W. Spring Mountain Road / Suite 225  
Las Vegas, NV 89102  
702-938-4080 / FAX 702-938-4082

PROJECT NAME: Verrington Air Qlty

L A B O R A T O R Y N A M E & A D D R E S S :      S E V E R N T R E N T L A B S . - W E S T S A C R A M E T O

THE JOURNAL OF CLIMATE

CLIENT Brown & Caldwell PM KD LOG # 42856LOT# (QUANTIMS ID) GCL220174 QUOTE# 62484 LOCATION AZDATE RECEIVED 12-22-06 TIME RECEIVED 1000 Initials CH Date 12-22-06

DELIVERED BY  FEDEX  CA OVERNIGHT  CLIENT  
 AIRBORNE  GOLDENSTATE  DHL  
 UPS  BAX GLOBAL  GO-GETTERS  
 STL COURIER  COURIERS ON DEMAND  
 OTHER

CUSTODY SEAL STATUS  INTACT  BROKEN  N/A

CUSTODY SEAL #(S) \_\_\_\_\_

SHIPPING CONTAINER(S)  STL  CLIENT  N/ATEMPERATURE RECORD (IN °C) IR 1  3  OTHER N/A

COC #(S) \_\_\_\_\_

TEMPERATURE BLANK Observed: NA Corrected: \_\_\_\_\_

SAMPLE TEMPERATURE

Observed: Amber Average: \_\_\_\_\_ Corrected Average: \_\_\_\_\_COLLECTOR'S NAME:  Verified from COC  Not on COCpH MEASURED  YES  ANOMALY  N/A

LABELED BY \_\_\_\_\_

LABELS CHECKED BY \_\_\_\_\_

PEER REVIEW  NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING

WETCHEM  N/AVOA-ENCORES  N/A METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL  N/A COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES  N/A Clouseau  TEMPERATURE EXCEEDED (2 °C ~ 6 °C)<sup>1</sup>  N/A WET ICE  BLUE ICE  GEL PACK  NO COOLING AGENTS USED PM NOTIFIED

Notes: \_\_\_\_\_

<sup>1</sup> Acceptable temperature range for State of Wisconsin samples is <4°C.

Lot  
ID:

G6L220174

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOA*	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
VOAh*	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
AGB																				
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
AGJ																				
500AGJ																				
250AGJ																				
125AGJ																				
CGJ																				
500CGJ																				
250CGJ																				
125CGJ																				
PJ																				
PJn																				
500PJ																				
500PJn																				
500PJna																				
500PJzn/na																				
250PJ																				
250PJn																				
250PJna																				
250PJzn/na																				
Acetate Tube																				
"CT																				
Encore																				
Folder/filter	(	(	(	(																
PUF	(																			
Petri/Filter																				
XAD Trap																				
Ziploc																				

1

2

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17

18

19

20

1 = hydrochloric acid

s = sulfuric acid

na = sodium hydroxide

n = nitric acid

zn = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

QA-185 3/05 EM

Page 2

# AIR, 6020, Metals

Brown and Caldwell

Client Sample ID: P-0825

**TOTAL Metals**

Lot-Sample #....: G6L220174-001

Matrix.....: AIR

Date Sampled...: 12/19/06

Date Received...: 12/22/06

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>Prep Batch #....: 7011050</b>						
Aluminum	ND	240	ug	SW846 6020 Dilution Factor: 1	01/11/07 MDL.....: 120	JL2G11AD
Arsenic	ND	2.9	ug	SW846 6020 Dilution Factor: 1	01/11/07 MDL.....: 0.89	JL2G11AE
Cadmium	0.063 B	1.2	ug	SW846 6020 Dilution Factor: 1	01/11/07 MDL.....: 0.028	JL2G11AF
Cobalt	ND	2.4	ug	SW846 6020 Dilution Factor: 1	01/11/07 MDL.....: 2.3	JL2G11AG
Chromium	ND	2.9	ug	SW846 6020 Dilution Factor: 1	01/11/07 MDL.....: 2.3	JL2G11AH
Copper	9.5	6.0	ug	SW846 6020 Dilution Factor: 1	01/11/07 MDL.....: 1.3	JL2G11AJ
Manganese	4.2 B	6.0	ug	SW846 6020 Dilution Factor: 1	01/11/07 MDL.....: 2.0	JL2G11AK
Nickel	ND	6.0	ug	SW846 6020 Dilution Factor: 1	01/11/07 MDL.....: 1.2	JL2G11AL

**NOTE(S) :**

B Estimated result. Result is less than RL.

Brown and Caldwell

Client Sample ID: 000583

**TOTAL Metals**

Lot-Sample #....: G6L220174-002  
Date Sampled...: 12/19/06

Matrix.....: AIR

Date Received...: 12/22/06

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>Prep Batch #....: 7011050</b>						
Aluminum	ND	240	ug	SW846 6020 Dilution Factor: 1	MDL.....: 120	01/11/07 JL2HC1AD
Arsenic	0.90 B	2.9	ug	SW846 6020 Dilution Factor: 1	MDL.....: 0.89	01/11/07 JL2HC1AE
Cadmium	0.045 B	1.2	ug	SW846 6020 Dilution Factor: 1	MDL.....: 0.028	01/11/07 JL2HC1AF
Cobalt	ND	2.4	ug	SW846 6020 Dilution Factor: 1	MDL.....: 2.3	01/11/07 JL2HC1AG
Chromium	ND	2.9	ug	SW846 6020 Dilution Factor: 1	MDL.....: 2.3	01/11/07 JL2HC1AH
Copper	9.3	6.0	ug	SW846 6020 Dilution Factor: 1	MDL.....: 1.3	01/11/07 JL2HC1AJ
Manganese	4.0 B	6.0	ug	SW846 6020 Dilution Factor: 1	MDL.....: 2.0	01/11/07 JL2HC1AK
Nickel	ND	6.0	ug	SW846 6020 Dilution Factor: 1	MDL.....: 1.2	01/11/07 JL2HC1AL

**NOTE (S) :**

B Estimated result. Result is less than RL.

Brown and Caldwell

Client Sample ID: 000584

TOTAL Metals

Lot-Sample #....: G6L220174-003

Date Sampled....: 12/19/06

Matrix.....: AIR

Date Received...: 12/22/06

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>Prep Batch #....: 7011050</b>						
Aluminum	135 B	240	ug	SW846 6020	01/11/07	JL2HF1AD
		Dilution Factor: 1		MDL.....: 120		
Arsenic	ND	2.9	ug	SW846 6020	01/11/07	JL2HF1AE
		Dilution Factor: 1		MDL.....: 0.89		
Cadmium	0.047 B	1.2	ug	SW846 6020	01/11/07	JL2HF1AF
		Dilution Factor: 1		MDL.....: 0.028		
Cobalt	ND	2.4	ug	SW846 6020	01/11/07	JL2HF1AG
		Dilution Factor: 1		MDL.....: 2.3		
Chromium	ND	2.9	ug	SW846 6020	01/11/07	JL2HF1AH
		Dilution Factor: 1		MDL.....: 2.3		
Copper	11.0	6.0	ug	SW846 6020	01/11/07	JL2HF1AJ
		Dilution Factor: 1		MDL.....: 1.3		
Manganese	4.1 B	6.0	ug	SW846 6020	01/11/07	JL2HF1AK
		Dilution Factor: 1		MDL.....: 2.0		
Nickel	ND	6.0	ug	SW846 6020	01/11/07	JL2HF1AL
		Dilution Factor: 1		MDL.....: 1.2		

NOTE(S) :

B Estimated result. Result is less than RL.

Brown and Caldwell

Client Sample ID: 000585

## TOTAL Metals

Lot-Sample #...: G6L220174-004

Matrix.....: AIR

Date Sampled...: 12/19/06

Date Received...: 12/22/06

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>Prep Batch #...: 7011050</b>						
Aluminum	191 B	240	ug	SW846 6020	01/11/07	JL2HH1AD
		Dilution Factor: 1		MDL.....: 120		
Arsenic	1.1 B	2.9	ug	SW846 6020	01/11/07	JL2HH1AE
		Dilution Factor: 1		MDL.....: 0.89		
Cadmium	0.046 B	1.2	ug	SW846 6020	01/11/07	JL2HH1AF
		Dilution Factor: 1		MDL.....: 0.028		
Cobalt	ND	2.4	ug	SW846 6020	01/11/07	JL2HH1AG
		Dilution Factor: 1		MDL.....: 2.3		
Chromium	ND	2.9	ug	SW846 6020	01/11/07	JL2HH1AH
		Dilution Factor: 1		MDL.....: 2.3		
Copper	18.1	6.0	ug	SW846 6020	01/11/07	JL2HH1AJ
		Dilution Factor: 1		MDL.....: 1.3		
Manganese	5.2 B	6.0	ug	SW846 6020	01/11/07	JL2HH1AK
		Dilution Factor: 1		MDL.....: 2.0		
Nickel	ND	6.0	ug	SW846 6020	01/11/07	JL2HH1AL
		Dilution Factor: 1		MDL.....: 1.2		

NOTE(S) :

B Estimated result. Result is less than RL.

# QC DATA ASSOCIATION SUMMARY

G6L220174

## Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	AIR	SW846 6020		7011050	
002	AIR	SW846 6020		7011050	
003	AIR	SW846 6020		7011050	
004	AIR	SW846 6020		7011050	

## METHOD BLANK REPORT

## TOTAL Metals

Client Lot #...: G6L220174

Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>MB Lot-Sample #: G7A110000-050 Prep Batch #...: 7011050</b>						
Aluminum	ND	240	ug	SW846 6020	01/11/07	JMNKG1AA
		Dilution Factor: 1				
Arsenic	ND	2.9	ug	SW846 6020	01/11/07	JMNKG1AC
		Dilution Factor: 1				
Cadmium	ND	1.2	ug	SW846 6020	01/11/07	JMNKG1AD
		Dilution Factor: 1				
Chromium	ND	2.9	ug	SW846 6020	01/11/07	JMNKG1AF
		Dilution Factor: 1				
Cobalt	ND	2.4	ug	SW846 6020	01/11/07	JMNKG1AE
		Dilution Factor: 1				
Copper	ND	6.0	ug	SW846 6020	01/11/07	JMNKG1AG
		Dilution Factor: 1				
Manganese	ND	6.0	ug	SW846 6020	01/11/07	JMNKG1AH
		Dilution Factor: 1				
Nickel	ND	6.0	ug	SW846 6020	01/11/07	JMNKG1AJ
		Dilution Factor: 1				

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**LABORATORY CONTROL SAMPLE DATA REPORT**

**TOTAL Metals**

**Lot-Sample #....: G6L220174**

**Matrix.....: AIR**

PARAMETER	SPIKE	MEASURED		PERCNT			METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
	AMOUNT	AMOUNT	UNITS	RECVRY	RPD				
Aluminum	1200	1120	ug	93			SW846 6020	01/11/07	7011050
	1200	1100	ug	91	2.0		SW846 6020	01/11/07	7011050
Dilution Factor: 1									
Arsenic	240	200	ug	83			SW846 6020	01/11/07	7011050
	240	192	ug	80	4.3		SW846 6020	01/11/07	7011050
Dilution Factor: 1									
Cadmium	240	210	ug	88			SW846 6020	01/11/07	7011050
	240	199	ug	83	5.6		SW846 6020	01/11/07	7011050
Dilution Factor: 1									
Chromium	240	207	ug	86			SW846 6020	01/11/07	7011050
	240	190	ug	79	8.7		SW846 6020	01/11/07	7011050
Dilution Factor: 1									
Cobalt	240	192	ug	80			SW846 6020	01/11/07	7011050
	240	190	ug	79	0.87		SW846 6020	01/11/07	7011050
Dilution Factor: 1									
Copper	240	218	ug	91			SW846 6020	01/11/07	7011050
	240	208	ug	87	4.4		SW846 6020	01/11/07	7011050
Dilution Factor: 1									
Manganese	240	203	ug	85			SW846 6020	01/11/07	7011050
	240	197	ug	82	2.8		SW846 6020	01/11/07	7011050
Dilution Factor: 1									
Nickel	240	209	ug	87			SW846 6020	01/11/07	7011050
	240	207	ug	86	1.2		SW846 6020	01/11/07	7011050
Dilution Factor: 1									

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**TOTAL Metals**

**Lot-Sample #...: G6L220174**

**Matrix.....: AIR**

PARAMETER	PERCENT	RECOVERY	RPD	METHOD	PREPARATION-	PREP-
	RECOVERY	LIMITS	RPD		ANALYSIS DATE	BATCH #
Aluminum	93	(75 - 125)		SW846 6020	01/11/07	7011050
	91	(75 - 125)	2.0 (0-20)	SW846 6020	01/11/07	7011050
Dilution Factor: 1						
Arsenic	83	(75 - 125)		SW846 6020	01/11/07	7011050
	80	(75 - 125)	4.3 (0-20)	SW846 6020	01/11/07	7011050
Dilution Factor: 1						
Cadmium	88	(75 - 125)		SW846 6020	01/11/07	7011050
	83	(75 - 125)	5.6 (0-20)	SW846 6020	01/11/07	7011050
Dilution Factor: 1						
Chromium	86	(75 - 125)		SW846 6020	01/11/07	7011050
	79	(75 - 125)	8.7 (0-20)	SW846 6020	01/11/07	7011050
Dilution Factor: 1						
Cobalt	80	(75 - 125)		SW846 6020	01/11/07	7011050
	79	(75 - 125)	0.87 (0-20)	SW846 6020	01/11/07	7011050
Dilution Factor: 1						
Copper	91	(75 - 125)		SW846 6020	01/11/07	7011050
	87	(75 - 125)	4.4 (0-20)	SW846 6020	01/11/07	7011050
Dilution Factor: 1						
Manganese	85	(75 - 125)		SW846 6020	01/11/07	7011050
	82	(75 - 125)	2.8 (0-20)	SW846 6020	01/11/07	7011050
Dilution Factor: 1						
Nickel	87	(75 - 125)		SW846 6020	01/11/07	7011050
	86	(75 - 125)	1.2 (0-20)	SW846 6020	01/11/07	7011050
Dilution Factor: 1						

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

# AIR, 9056, Sulfate

Brown and Caldwell

Client Sample ID: P-0825

General Chemistry

Lot-Sample #....: G6L220174-001      Work Order #....: JL2G1      Matrix.....: AIR  
Date Sampled....: 12/19/06      Date Received...: 12/22/06

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Sulfate	0.41 B	0.48	mg	SW846 9056	01/11/07	7011335
		Dilution Factor: 12		MDL.....:	0.048	

NOTE(S) :

RL Reporting Limit

B Estimated result. Result is less than RL.

Brown and Caldwell

Client Sample ID: 000583

General Chemistry

Lot-Sample #....: G6L220174-002      Work Order #....: JL2HC      Matrix.....: AIR  
Date Sampled....: 12/19/06      Date Received...: 12/22/06

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Sulfate	0.37 B	0.48	mg	SW846 9056	01/11/07	7011335
		Dilution Factor: 12		MDL.....	0.048	

NOTE(S) :

RL Reporting Limit

B Estimated result. Result is less than RL.

Brown and Caldwell

Client Sample ID: 000584

General Chemistry

Lot-Sample #....: G6L220174-003      Work Order #....: JL2HF      Matrix.....: AIR  
Date Sampled....: 12/19/06      Date Received...: 12/22/06

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Sulfate	0.36 B	0.48	mg	SW846 9056	01/11/07	7011335
		Dilution Factor: 12		MDL.....	0.048	

NOTE(S) :

RL Reporting Limit

B Estimated result. Result is less than RL.

Brown and Caldwell

Client Sample ID: 000585

General Chemistry

Lot-Sample #....: G6L220174-004      Work Order #....: JL2HH      Matrix.....: AIR  
Date Sampled....: 12/19/06      Date Received...: 12/22/06

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Sulfate	0.35 B	0.48	mg	SW846 9056	01/11/07	7011335
		Dilution Factor: 12		MDL.....: 0.048		

**NOTE(S) :**

RL Reporting Limit

B Estimated result. Result is less than RL.

# QC DATA ASSOCIATION SUMMARY

G6L220174

## Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	AIR	SW846 9056		7011335	
	AIR	CFR50J APDX J		7009219	
002	AIR	SW846 9056		7011335	
	AIR	CFR50J APDX J		7009219	
003	AIR	SW846 9056		7011335	
	AIR	CFR50J APDX J		7009219	
004	AIR	CFR50B APDX B		7009217	
	AIR	SW846 9056		7011335	

METHOD BLANK REPORT

General Chemistry

Client Lot #....: G6L220174

Matrix.....: AIR

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	PREP
		LIMIT	UNITS				
Sulfate	ND	Work Order #:	JMP051AA	MB Lot-Sample #:	G7A110000-335	01/11/07	7011335
		0.48	mg	SW846 9056			
		Dilution Factor:	12				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE DATA REPORT

## General Chemistry

Lot-Sample #....: G6L220174

Matrix.....: AIR

<u>PARAMETER</u>	<u>SPIKE</u>	<u>MEASURED</u>		<u>PERCNT</u>			<u>PREPARATION-</u>	<u>ANALYSIS DATE</u>	<u>PREP</u>
	<u>AMOUNT</u>	<u>AMOUNT</u>	<u>UNITS</u>	<u>RECVRY</u>	<u>RPD</u>	<u>METHOD</u>			
Sulfate		WO#: JMP051AC-LCS/JMP051AD-LCSD			LCS	Lot-Sample#:	G7A110000-335		
	4.80	4.65	mg	97	SW846	9056	01/11/07	7011335	
	4.80	4.43	mg	92	4.8	SW846	9056	01/11/07	7011335
	Dilution Factor: 1								

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**General Chemistry**

**Lot-Sample #....:** G6L220174

**Matrix.....:** AIR

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
	<u>RECOVERY</u>	<u>LIMITS</u>	<u>RPD</u>		<u>LIMITS</u>	<u>ANALYSIS DATE</u>
Sulfate			WO#:JMP051AC-LCS/JMP051AD-LCSD	LCS	Lot-Sample#:	G7A110000-335
	97	(85 - 115)		SW846 9056	01/11/07	7011335
	92	(85 - 115)	4.8 (0-15)	SW846 9056	01/11/07	7011335
			Dilution Factor: 1			

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

# AIR, PM-10 & TSP

Brown and Caldwell

Client Sample ID: P-0825

General Chemistry

Lot-Sample #....: G6L220174-001    Work Order #....: JL2G1    Matrix.....: AIR  
Date Sampled...: 12/19/06    Date Received...: 12/22/06

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Particulate Matter as PM10	ND	0.0001	g	CFR50J APDX J	01/04-01/08/07	7009219

Brown and Caldwell

Client Sample ID: 000583

General Chemistry

Lot-Sample #....: G6L220174-002      Work Order #....: JL2HC      Matrix.....: AIR  
Date Sampled....: 12/19/06      Date Received...: 12/22/06

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Particulate Matter as PM10	0.0040	0.0001	g	CFR50J APDX J	01/04-01/08/07	7009219

Brown and Caldwell

Client Sample ID: 000584

General Chemistry

Lot-Sample #....: G6L220174-003      Work Order #....: JL2HF      Matrix.....: AIR  
Date Sampled....: 12/19/06      Date Received...: 12/22/06

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Particulate Matter as PM10	0.0060	0.0001	g	CFR50J APDX J	01/04-01/07/07	7009219

Brown and Caldwell

Client Sample ID: 000585

General Chemistry

Lot-Sample #....: G6L220174-004      Work Order #....: JL2HH      Matrix.....: AIR  
Date Sampled....: 12/19/06      Date Received...: 12/22/06

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	BATCH #
Total Suspended Particulates	0.0078	0.0001	g	CFR50B APDX B	01/04-01/07/07	7009217

# AIR, 6020, Metals

## **Raw Data Package**

**ICPMS**

SEVERN  
TRENT

STL

STL Sacramento  
ICP-MS Data Review Checklist  
Level I and Level II

Instrument ID (Circle one): <b>M01</b> <b>M02</b>		Method 6020 SOP SAC-MT-0001																										
File Number <b>070111a1</b>	Batch Numbers <b>7011050, 7011049, 7011051, 6353347</b>	Date <b>1/11/07</b>	Analyst <b>BFV</b>																									
Lot Numbers <b>G6L220174, G6L220235, G7A100186, G6L150361</b>			YES	NO																								
<table border="1"><tr><td>1. Copy of analysis protocol used included?</td><td>X</td></tr><tr><td>2. ICVs &amp; CCVs within 10% of true value or recal and rerun?</td><td>X</td></tr><tr><td>3. ICB &amp; CCBs &lt; reporting limit or recal and rerun?</td><td>X</td></tr><tr><td>4. 10 samples or less analyzed between calibration checks?</td><td>X</td></tr><tr><td>5. All parameters within linear range?</td><td>X</td></tr><tr><td>6. LCS/LCSD within limits?</td><td>X</td></tr><tr><td>7. Prep blank value &lt; reporting limit or all samples &gt;20x blank?</td><td>X</td></tr><tr><td>8. Internal standard intensities for samples (unless followed by dilution) are &gt; 30% and &lt;130% of the Calibration Blank intensities?</td><td>X</td></tr><tr><td>9. Appropriate dilution factors applied to data?</td><td>X</td></tr><tr><td>10. Matrix spike and spike dup within customer defined limits?</td><td></td></tr><tr><td>11. Each batch checked for presence of internal standard in samples?</td><td>X</td></tr><tr><td>12. Anomalies entered using Clouseau?</td><td></td></tr></table>					1. Copy of analysis protocol used included?	X	2. ICVs & CCVs within 10% of true value or recal and rerun?	X	3. ICB & CCBs < reporting limit or recal and rerun?	X	4. 10 samples or less analyzed between calibration checks?	X	5. All parameters within linear range?	X	6. LCS/LCSD within limits?	X	7. Prep blank value < reporting limit or all samples >20x blank?	X	8. Internal standard intensities for samples (unless followed by dilution) are > 30% and <130% of the Calibration Blank intensities?	X	9. Appropriate dilution factors applied to data?	X	10. Matrix spike and spike dup within customer defined limits?		11. Each batch checked for presence of internal standard in samples?	X	12. Anomalies entered using Clouseau?	
1. Copy of analysis protocol used included?	X																											
2. ICVs & CCVs within 10% of true value or recal and rerun?	X																											
3. ICB & CCBs < reporting limit or recal and rerun?	X																											
4. 10 samples or less analyzed between calibration checks?	X																											
5. All parameters within linear range?	X																											
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11. Each batch checked for presence of internal standard in samples?	X																											
12. Anomalies entered using Clouseau?																												

COMMENTS:

REVIEWED BY:

*MTZ*

DATE:

*1/12/07*

DATA ENTERED BY:

*BFV*

DATE: *1/12/07*

# Dataset Report

Perkin Elmer ICPMS M01  
 User Name: JonesB  
 Computer Name: SACP317BFB  
 Dataset File Path: C:\elandata\Dataset\070111a1\  
 Report Date/Time: Friday, January 12, 2007 07:25:15

## The Dataset

Batch ID	Sample ID	Date and Time	Read Type	Description
	TUNE BJONES	11:18:16 Thu 11-Jan-07	Sample	
	AUTOLENS BJONES	11:21:44 Thu 11-Jan-07	Sample	Auto Lens Calib
	DAILY BJONES	11:25:45 Thu 11-Jan-07	Sample	
	Rinse 2X	12:06:47 Thu 11-Jan-07	Sample	
	Blank	12:11:19 Thu 11-Jan-07	Blank	
	Standard 1	12:15:47 Thu 11-Jan-07	Standard #1	
	ICV	12:19:58 Thu 11-Jan-07	Sample	
	ICB	12:24:14 Thu 11-Jan-07	Sample	
	LLS 5X	12:29:08 Thu 11-Jan-07	Sample	Low level 5X
	LLS 10X	12:32:47 Thu 11-Jan-07	Sample	Low Level 10X
	ICSA	12:40:34 Thu 11-Jan-07	Sample	
	ICSAB	12:44:48 Thu 11-Jan-07	Sample	
	Rinse	12:49:03 Thu 11-Jan-07	Sample	
	CCV 1	12:54:08 Thu 11-Jan-07	Sample	
	CCB 1	12:59:34 Thu 11-Jan-07	Sample	
	CCV 2	13:03:51 Thu 11-Jan-07	Sample	
	CCB 2	13:08:07 Thu 11-Jan-07	Sample	
7011050	JMNKG	13:18:05 Thu 11-Jan-07	Sample	G7A110000-50 LCS
7011050	JMNKGL	13:22:12 Thu 11-Jan-07	Sample	G7A110000-50 LCSD <i>scrub</i>
	Rinse	13:26:27 Thu 11-Jan-07	Sample	
7011050	JMNKGB	13:30:38 Thu 11-Jan-07	Sample	G7A110000-50 BLK
7011050	JL2G1	13:34:48 Thu 11-Jan-07	Sample	G6L220174-1
7011050	JL2G1P5	13:38:55 Thu 11-Jan-07	Sample	G6L220174-1 5X
7011050	JL2G1Z	13:43:03 Thu 11-Jan-07	Sample	G6L220174-1 PS
7011050	JL2HC	13:47:11 Thu 11-Jan-07	Sample	G6L220174-2
7011050	JL2HF	13:51:20 Thu 11-Jan-07	Sample	G6L220174-3
7011050	JL2HH	13:55:29 Thu 11-Jan-07	Sample	G6L220174-4
<i>RECAL</i>	CCV 3	13:59:44 Thu 11-Jan-07	Sample	
	CCB 3	14:04:01 Thu 11-Jan-07	Sample	
	CCV 4	14:08:17 Thu 11-Jan-07	Sample	
	CCB 4	14:12:34 Thu 11-Jan-07	Sample	
	CONT BLANK	14:16:51 Thu 11-Jan-07	Sample	CONTROL BLANK
7011050	LLS 5X	14:20:32 Thu 11-Jan-07	Sample	Low level 5X
	LLS 10X	14:24:12 Thu 11-Jan-07	Sample	Low Level 10X
	ICSA	14:27:51 Thu 11-Jan-07	Sample	
	ICSAB	14:32:05 Thu 11-Jan-07	Sample	
	Rinse	14:36:21 Thu 11-Jan-07	Sample	
	CCV 5	14:40:38 Thu 11-Jan-07	Sample	
	CCB 5	14:44:54 Thu 11-Jan-07	Sample	
	CCV 6	14:49:11 Thu 11-Jan-07	Sample	
	CCB 6	14:53:28 Thu 11-Jan-07	Sample	
7011049	JMNKAC	14:57:37 Thu 11-Jan-07	Sample	G7A110000-49 LCS
7011049	JMNKAL	15:01:44 Thu 11-Jan-07	Sample	G7A110000-49 LCSD
	Rinse	15:10:53 Thu 11-Jan-07	Sample	
7011049	JMNKAB	15:15:05 Thu 11-Jan-07	Sample	G7A110000-49 BLK
7011049	JL23E	15:19:26 Thu 11-Jan-07	Sample	G6L220235-3
7011049	JL23EP5	15:23:36 Thu 11-Jan-07	Sample	G6L220235-3 5X
7011049	JL23EZ	15:27:57 Thu 11-Jan-07	Sample	G6L220235-3 PS
7011049	JL23H	15:32:09 Thu 11-Jan-07	Sample	G6L220235-4
7011050	JMNKGL	15:36:19 Thu 11-Jan-07	Sample	G7A110000-50 LCSD <i>report</i>

	CCV 7	15:40:34 Thu 11-Jan-07	Sample	
	CCB 7	15:44:51 Thu 11-Jan-07	Sample	
	CCV 8	15:57:30 Thu 11-Jan-07	Sample	
	CCB 8	16:01:11 Thu 11-Jan-07	Sample	
7011051	JMNKKC	16:04:45 Thu 11-Jan-07	Sample	G7A110000-51 LCS
7011051	JMNKKL	16:08:18 Thu 11-Jan-07	Sample	G7A110000-51 LCSD
	Rinse	16:12:56 Thu 11-Jan-07	Sample	
7011051	JMNKKB	16:16:33 Thu 11-Jan-07	Sample	G7A110000-51 BLK
7011051	JML82	16:20:09 Thu 11-Jan-07	Sample	G7A100186-1
7011051	JML82P5	16:23:44 Thu 11-Jan-07	Sample	G7A100186-1 5X
7011051	JML82X	16:27:21 Thu 11-Jan-07	Sample	G7A100186-1 DU
7011051	JML82Z	16:30:57 Thu 11-Jan-07	Sample	G7A100186-1 PS
7011051	JML9E	16:34:31 Thu 11-Jan-07	Sample	G7A100186-2
7011051	JML9G	16:38:03 Thu 11-Jan-07	Sample	G7A100186-3
	CCV 9	16:41:42 Thu 11-Jan-07	Sample	
	CCB 9	16:45:23 Thu 11-Jan-07	Sample	
	CCV 10	16:49:04 Thu 11-Jan-07	Sample	
	CCB 10	16:52:45 Thu 11-Jan-07	Sample	
7011051	JML9J	16:56:19 Thu 11-Jan-07	Sample	G7A100186-4
7011051	JML9K	16:59:52 Thu 11-Jan-07	Sample	G7A100186-5
7011051	JML9L	17:03:25 Thu 11-Jan-07	Sample	G7A100186-6
7011051	JML9R	17:06:58 Thu 11-Jan-07	Sample	G7A100186-7
7011051	JML9T	17:10:32 Thu 11-Jan-07	Sample	G7A100186-8
7011051	JML9W	17:14:06 Thu 11-Jan-07	Sample	G7A100186-9
7011051	JML9X	17:17:40 Thu 11-Jan-07	Sample	G7A100186-10
7011051	JML91	17:21:15 Thu 11-Jan-07	Sample	G7A100186-11
7011051	JML92	17:24:51 Thu 11-Jan-07	Sample	G7A100186-12
	CCV 11	17:28:31 Thu 11-Jan-07	Sample	
	CCB 11	17:32:12 Thu 11-Jan-07	Sample	
	CCV 12	17:51:11 Thu 11-Jan-07	Sample	
	CCB 12	17:53:54 Thu 11-Jan-07	Sample	
	CCV 13	17:56:37 Thu 11-Jan-07	Sample	
	CCB 13	17:59:21 Thu 11-Jan-07	Sample	
6353347	JLRJPC	18:01:58 Thu 11-Jan-07	Sample	G6L190000-347 LCS
6353347	JLRJPL	18:04:33 Thu 11-Jan-07	Sample	G6L190000-347 LCSD
	Rinse	18:07:16 Thu 11-Jan-07	Sample	
6353347	JLRJPB	18:09:55 Thu 11-Jan-07	Sample	G6L190000-347 BLK
6353347	JLLNP	18:12:32 Thu 11-Jan-07	Sample	G6L150361-1
6353347	JLLNPP5	18:15:05 Thu 11-Jan-07	Sample	G6L150361-1 5X
6353347	JLLNPX	18:17:39 Thu 11-Jan-07	Sample	G6L150361-1 DU
6353347	JLLNPZ	18:20:14 Thu 11-Jan-07	Sample	G6L150361-1 PS
6353347	JLLNR	18:22:48 Thu 11-Jan-07	Sample	G6L150361-2
6353347	JLLNT	18:25:23 Thu 11-Jan-07	Sample	G6L150361-3
	CCV 14	18:28:05 Thu 11-Jan-07	Sample	
	CCB 14	18:30:48 Thu 11-Jan-07	Sample	

## STL Sacramento

## RUN SUMMARY

Method: 6020 (SOP: SAC-MT-001)

Instrument: M01

Reported: 01/12/07 09:29:00

File ID: 070111A1

Analyst: jonesb

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
1	Blank			1.0	01/11/07 12:11		<input type="checkbox"/>
2	Standard1			1.0	01/11/07 12:15		<input type="checkbox"/>
3	ICV			1.0	01/11/07 12:19		<input type="checkbox"/>
4	ICB			1.0	01/11/07 12:24		<input type="checkbox"/>
5	LLS 5X			5.0	01/11/07 12:29		<input type="checkbox"/>
6	LLS 10X			10.0	01/11/07 12:32		<input type="checkbox"/>
7	ICSA			1.0	01/11/07 12:40		<input type="checkbox"/>
8	ICSAB			1.0	01/11/07 12:44		<input type="checkbox"/>
9	Rinse			1.0	01/11/07 12:49		<input type="checkbox"/>
10	CCV 1			1.0	01/11/07 12:54		<input type="checkbox"/>
11	CCB 1			1.0	01/11/07 12:59		<input type="checkbox"/>
12	CCV 2			1.0	01/11/07 13:03		<input type="checkbox"/>
13	CCB 2			1.0	01/11/07 13:08		<input type="checkbox"/>
14	JMNKG C	G7A110000	7011050	2A	1.0	01/11/07 13:18	<input type="checkbox"/>
15	JMNKG L	G7A110000	7011050	2A	1.0	01/11/07 13:22	<input type="checkbox"/>
16	Rinse				1.0	01/11/07 13:26	<input type="checkbox"/>
17	JMNKG B	G7A110000	7011050	2A	1.0	01/11/07 13:30	<input type="checkbox"/>
18	JL2G1	G6L220174-1	7011050	2A	1.0	01/11/07 13:34	<input type="checkbox"/>
19	JL2G1P5	G6L220174	7011050		5.0	01/11/07 13:38	<input type="checkbox"/>
20	JL2G1Z	G6L220174-1	7011050		1.0	01/11/07 13:43	<input type="checkbox"/>
21	JL2HC	G6L220174-2	7011050	2A	1.0	01/11/07 13:47	<input type="checkbox"/>
22	JL2HF	G6L220174-3	7011050	2A	1.0	01/11/07 13:51	<input type="checkbox"/>
23	JL2HH	G6L220174-4	7011050	2A	1.0	01/11/07 13:55	<input type="checkbox"/>
24	CCV 3				1.0	01/11/07 13:59	<input type="checkbox"/>
25	CCB 3				1.0	01/11/07 14:04	<input type="checkbox"/>
28	CCV 4				1.0	01/11/07 14:08	<input type="checkbox"/>
29	CCB 4				1.0	01/11/07 14:12	<input type="checkbox"/>
30	CONT BLANK				1.0	01/11/07 14:16	<input type="checkbox"/>
31	LLS 5X				5.0	01/11/07 14:20	<input type="checkbox"/>
32	LLS 10X				10.0	01/11/07 14:24	<input type="checkbox"/>
33	ICSA				1.0	01/11/07 14:27	<input type="checkbox"/>
34	ICSAB				1.0	01/11/07 14:32	<input type="checkbox"/>
35	Rinse				1.0	01/11/07 14:36	<input type="checkbox"/>
36	CCV 5				1.0	01/11/07 14:40	<input type="checkbox"/>
37	CCB 5				1.0	01/11/07 14:44	<input type="checkbox"/>
38	CCV 6				1.0	01/11/07 14:49	<input type="checkbox"/>
39	CCB 6				1.0	01/11/07 14:53	<input type="checkbox"/>
40	JMNKAC	G7A110000	7011049	2A	1.0	01/11/07 14:57	<input type="checkbox"/>
41	JMNKAL	G7A110000	7011049	2A	1.0	01/11/07 15:01	<input type="checkbox"/>
42	Rinse				1.0	01/11/07 15:10	<input type="checkbox"/>
43	JMNKAB	G7A110000	7011049	2A	1.0	01/11/07 15:15	<input type="checkbox"/>
44	JL23E	G6L220235-3	7011049	2A	1.0	01/11/07 15:19	<input type="checkbox"/>
45	JL23EP5	G6L220235	7011049		5.0	01/11/07 15:23	<input type="checkbox"/>
46	JL23EZ	G6L220235-3	7011049		1.0	01/11/07 15:27	<input type="checkbox"/>
47	JL23H	G6L220235-4	7011049	2A	1.0	01/11/07 15:32	<input type="checkbox"/>
48	JMNKG L	G7A110000	7011050	2A	1.0	01/11/07 15:36	<input type="checkbox"/>

## STL Sacramento

## RUN SUMMARY

Method: 6020 (SOP: SAC-MT-001)

Instrument: M01

Reported: 01/12/07 09:29:00

File ID: 070111A1

Analyst: jonesb

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
49	CCV 7			1.0	01/11/07 15:40		<input type="checkbox"/>
50	CCB 7			1.0	01/11/07 15:44		<input type="checkbox"/>
51	CCV 8			1.0	01/11/07 15:57		<input type="checkbox"/>
52	CCB 8			1.0	01/11/07 16:01		<input type="checkbox"/>
53	JMNKKC	G7A110000	7011051	2A	1.0 01/11/07 16:04		<input type="checkbox"/>
54	JMNKKL	G7A110000	7011051	2A	1.0 01/11/07 16:08		<input type="checkbox"/>
55	Rinse				1.0 01/11/07 16:12		<input type="checkbox"/>
56	JMNKKB	G7A110000	7011051	2A	1.0 01/11/07 16:16		<input type="checkbox"/>
57	JML82	G7A100186-1	7011051	2A	1.0 01/11/07 16:20		<input type="checkbox"/>
58	JML82P5	G7A100186	7011051		5.0 01/11/07 16:23		<input type="checkbox"/>
59	JML82X	G7A100186-1	7011051	2A	1.0 01/11/07 16:27		<input type="checkbox"/>
60	JML82Z	G7A100186-1	7011051		1.0 01/11/07 16:30		<input type="checkbox"/>
61	JML9E	G7A100186-2	7011051	2A	1.0 01/11/07 16:34		<input type="checkbox"/>
62	JML9G	G7A100186-3	7011051	2A	1.0 01/11/07 16:38		<input type="checkbox"/>
63	CCV 9				1.0 01/11/07 16:41		<input type="checkbox"/>
64	CCB 9				1.0 01/11/07 16:45		<input type="checkbox"/>
65	CCV 10				1.0 01/11/07 16:49		<input type="checkbox"/>
66	CCB 10				1.0 01/11/07 16:52		<input type="checkbox"/>
67	JML9J	G7A100186-4	7011051	2A	1.0 01/11/07 16:56		<input type="checkbox"/>
68	JML9K	G7A100186-5	7011051	2A	1.0 01/11/07 16:59		<input type="checkbox"/>
69	JML9L	G7A100186-6	7011051	2A	1.0 01/11/07 17:03		<input type="checkbox"/>
70	JML9R	G7A100186-7	7011051	2A	1.0 01/11/07 17:06		<input type="checkbox"/>
71	JML9T	G7A100186-8	7011051	2A	1.0 01/11/07 17:10		<input type="checkbox"/>
72	JML9W	G7A100186-9	7011051	2A	1.0 01/11/07 17:14		<input type="checkbox"/>
73	JML9X	G7A100186-10	7011051	2A	1.0 01/11/07 17:17		<input type="checkbox"/>
74	JML91	G7A100186-11	7011051	2A	1.0 01/11/07 17:21		<input type="checkbox"/>
75	JML92	G7A100186-12	7011051	2A	1.0 01/11/07 17:24		<input type="checkbox"/>
76	CCV 11				1.0 01/11/07 17:28		<input type="checkbox"/>
77	CCB 11				1.0 01/11/07 17:32		<input type="checkbox"/>
78	CCV 12				1.0 01/11/07 17:51		<input type="checkbox"/>
79	CCB 12				1.0 01/11/07 17:53		<input type="checkbox"/>
80	CCV 13				1.0 01/11/07 17:56		<input type="checkbox"/>
81	CCB 13				1.0 01/11/07 17:59		<input type="checkbox"/>
82	JLRJPC	G6L190000	6353347	DF	1.0 01/11/07 18:01		<input type="checkbox"/>
83	JLRJPL	G6L190000	6353347	DF	1.0 01/11/07 18:04		<input type="checkbox"/>
84	Rinse				1.0 01/11/07 18:07		<input type="checkbox"/>
85	JLRJPB	G6L190000	6353347	DF	1.0 01/11/07 18:09		<input type="checkbox"/>
86	JLLNP	G6L150361-1	6353347	DF	1.0 01/11/07 18:12		<input type="checkbox"/>
87	JLLNPP5	G6L150361	6353347		5.0 01/11/07 18:15		<input type="checkbox"/>
88	JLLNPX	G6L150361-1	6353347	DF	1.0 01/11/07 18:17		<input type="checkbox"/>
89	JLLNPZ	G6L150361-1	6353347		1.0 01/11/07 18:20		<input type="checkbox"/>
90	JLLNR	G6L150361-2	6353347	DF	1.0 01/11/07 18:22		<input type="checkbox"/>
91	JLLNT	G6L150361-3	6353347	DF	1.0 01/11/07 18:25		<input type="checkbox"/>
92	CCV 14				1.0 01/11/07 18:28		<input type="checkbox"/>
93	CCB 14				1.0 01/11/07 18:30		<input type="checkbox"/>

## STL Sacramento

## INTERNAL STANDARD SUMMARY

Method: 6020 (SOP: SAC-MT-001)

M01 (M01)

Reported: 01/12/07 09:29:00

File ID: 070111A1

Analyst: ionesb

Germanium Indium Lithium-6 Thulium

Q

# Sample ID Analyzed Date

1	Blank	01/11/07 12:11	100.0	100.0	100.0	100.0	<input checked="" type="checkbox"/>
2	Standard1	01/11/07 12:15	103.2	100.9	100.4	101.7	<input checked="" type="checkbox"/>
3	ICV	01/11/07 12:19	98.8	97.6	97.6	98.6	<input checked="" type="checkbox"/>
4	ICB	01/11/07 12:24	98.3	97.6	96.2	99.2	<input checked="" type="checkbox"/>
5	LLS 5X	01/11/07 12:29	104.0	105.2	101.7	105.7	<input checked="" type="checkbox"/>
6	LLS 10X	01/11/07 12:32	103.5	104.2	100.3	106.2	<input checked="" type="checkbox"/>
7	ICSA	01/11/07 12:40	93.2	91.3	82.5	84.7	<input checked="" type="checkbox"/>
8	ICSAB	01/11/07 12:44	95.0	92.8	83.6	85.7	<input checked="" type="checkbox"/>
9	Rinse	01/11/07 12:49	110.1	103.4	107.1	106.1	<input checked="" type="checkbox"/>
10	CCV 1	01/11/07 12:54	104.7	95.7	100.5	104.2	<input checked="" type="checkbox"/>
11	CCB 1	01/11/07 12:59	97.9	93.1	95.0	99.8	<input checked="" type="checkbox"/>
12	CCV 2	01/11/07 13:03	99.0	92.2	94.8	101.2	<input checked="" type="checkbox"/>
13	CCB 2	01/11/07 13:08	95.0	92.5	91.1	98.5	<input checked="" type="checkbox"/>
14	JMNKG C	01/11/07 13:18	92.5	92.1	92.3	99.9	<input checked="" type="checkbox"/>
15	JMNKG L	01/11/07 13:22	98.0	93.7	91.2	99.1	<input checked="" type="checkbox"/>
16	Rinse	01/11/07 13:26	93.4	92.4	90.2	99.5	<input checked="" type="checkbox"/>
17	JMNKG B	01/11/07 13:30	94.7	94.9	92.7	102.1	<input checked="" type="checkbox"/>
18	JL2G1	01/11/07 13:34	95.2	95.1	93.4	101.0	<input checked="" type="checkbox"/>
19	JL2G1P5	01/11/07 13:38	96.4	94.0	93.6	100.9	<input type="checkbox"/>
20	JL2G1Z	01/11/07 13:43	93.8	93.8	95.2	100.0	<input checked="" type="checkbox"/>
21	JL2HC	01/11/07 13:47	94.3	94.5	92.8	100.8	<input checked="" type="checkbox"/>
22	JL2HF	01/11/07 13:51	95.6	96.4	93.5	101.1	<input checked="" type="checkbox"/>
23	JL2HH	01/11/07 13:55	95.4	95.5	93.9	101.0	<input checked="" type="checkbox"/>
24	CCV 3	01/11/07 13:59	97.7	94.6	94.4	100.9	<input checked="" type="checkbox"/>
25	CCB 3	01/11/07 14:04	94.5	93.2	92.1	100.0	<input checked="" type="checkbox"/>
28	CCV 4	01/11/07 14:08	97.8	94.1	93.9	101.0	<input checked="" type="checkbox"/>
29	CCB 4	01/11/07 14:12	94.1	94.3	91.3	98.8	<input checked="" type="checkbox"/>
30	CONT BLANH	01/11/07 14:16	96.7	99.6	97.1	105.5	<input checked="" type="checkbox"/>
31	LLS 5X	01/11/07 14:20	97.6	99.9	97.2	104.8	<input checked="" type="checkbox"/>
32	LLS 10X	01/11/07 14:24	97.2	99.6	96.8	104.5	<input checked="" type="checkbox"/>
33	ICSA	01/11/07 14:27	89.7	86.9	80.3	80.3	<input checked="" type="checkbox"/>
34	ICSAB	01/11/07 14:32	90.5	87.3	80.2	79.7	<input checked="" type="checkbox"/>
35	Rinse	01/11/07 14:36	104.8	97.7	102.6	99.3	<input checked="" type="checkbox"/>
36	CCV 5	01/11/07 14:40	104.4	94.8	100.8	99.8	<input checked="" type="checkbox"/>
37	CCB 5	01/11/07 14:44	102.2	94.0	99.5	99.1	<input checked="" type="checkbox"/>
38	CCV 6	01/11/07 14:49	102.1	92.8	98.6	99.8	<input checked="" type="checkbox"/>
39	CCB 6	01/11/07 14:53	101.1	93.9	98.4	99.3	<input checked="" type="checkbox"/>
40	JMNKAC	01/11/07 14:57	95.2	91.6	96.7	99.4	<input checked="" type="checkbox"/>
41	JMNKAL	01/11/07 15:01	92.6	94.3	95.6	97.2	<input checked="" type="checkbox"/>
42	Rinse	01/11/07 15:10	95.6	93.5	96.2	97.9	<input checked="" type="checkbox"/>
43	JMNKAB	01/11/07 15:15	95.4	93.3	98.0	101.0	<input checked="" type="checkbox"/>
44	JL23E	01/11/07 15:19	96.8	94.5	98.1	99.8	<input checked="" type="checkbox"/>
45	JL23EP5	01/11/07 15:23	97.5	92.1	97.3	98.3	<input type="checkbox"/>
46	JL23EZ	01/11/07 15:27	93.4	96.4	95.8	98.1	<input checked="" type="checkbox"/>
47	JL23H	01/11/07 15:32	94.2	97.0	94.3	98.1	<input checked="" type="checkbox"/>
48	JMNKG L	01/11/07 15:36	97.2	96.1	94.8	97.0	<input checked="" type="checkbox"/>

STL Sacramento

## INTERNAL STANDARD SUMMARY

Method: 6020 (SOP: SAC-MT-001)

M01 (M01)

Reported: 01/12/07 09:29:00

File ID: 070111A1

Analyst: ionesb

Germanium Indium Lithium-6 Thulium

#	Sample ID	Analyzed Date	Germanium	Indium	Lithium-6	Thulium	Q
49	CCV 7	01/11/07 15:40	94.5	95.2	95.4	96.4	<input checked="" type="checkbox"/>
50	CCB 7	01/11/07 15:44	93.8	96.4	94.2	97.0	<input checked="" type="checkbox"/>
51	CCV 8	01/11/07 15:57	94.6	94.8	95.2	97.3	<input checked="" type="checkbox"/>
52	CCB 8	01/11/07 16:01	92.6	95.1	94.1	96.5	<input checked="" type="checkbox"/>
53	JMNKKC	01/11/07 16:04	96.0	94.8	94.1	96.5	<input checked="" type="checkbox"/>
54	JMNKKL	01/11/07 16:08	94.9	93.8	93.8	95.9	<input checked="" type="checkbox"/>
55	Rinse	01/11/07 16:12	95.5	93.5	93.3	94.4	<input checked="" type="checkbox"/>
56	JMNKKB	01/11/07 16:16	96.7	95.2	94.9	97.1	<input checked="" type="checkbox"/>
57	JML82	01/11/07 16:20	97.3	95.0	95.3	96.3	<input checked="" type="checkbox"/>
58	JML82P5	01/11/07 16:23	94.5	95.5	96.0	95.8	<input type="checkbox"/>
59	JML82X	01/11/07 16:27	97.0	95.5	95.6	96.4	<input checked="" type="checkbox"/>
60	JML82Z	01/11/07 16:30	95.0	93.0	95.5	94.7	<input checked="" type="checkbox"/>
61	JML9E	01/11/07 16:34	95.9	94.2	94.8	96.0	<input checked="" type="checkbox"/>
62	JML9G	01/11/07 16:38	96.0	93.3	93.5	94.4	<input checked="" type="checkbox"/>
63	CCV 9	01/11/07 16:41	97.7	92.7	95.3	94.8	<input checked="" type="checkbox"/>
64	CCB 9	01/11/07 16:45	97.4	94.1	94.4	94.6	<input checked="" type="checkbox"/>
65	CCV 10	01/11/07 16:49	93.5	92.8	95.3	95.8	<input checked="" type="checkbox"/>
66	CCB 10	01/11/07 16:52	92.5	94.8	94.4	95.2	<input checked="" type="checkbox"/>
67	JML9J	01/11/07 16:56	93.2	95.7	94.0	97.5	<input checked="" type="checkbox"/>
68	JML9K	01/11/07 16:59	92.9	95.6	95.9	97.9	<input checked="" type="checkbox"/>
69	JML9L	01/11/07 17:03	96.4	96.4	95.7	97.3	<input checked="" type="checkbox"/>
70	JML9R	01/11/07 17:06	98.0	96.2	95.6	97.3	<input checked="" type="checkbox"/>
71	JML9T	01/11/07 17:10	97.6	96.2	96.1	97.4	<input checked="" type="checkbox"/>
72	JML9W	01/11/07 17:14	94.5	96.6	96.2	97.1	<input checked="" type="checkbox"/>
73	JML9X	01/11/07 17:17	96.3	95.7	96.1	97.4	<input checked="" type="checkbox"/>
74	JML91	01/11/07 17:21	93.2	96.6	96.2	97.5	<input checked="" type="checkbox"/>
75	JML92	01/11/07 17:24	94.4	96.0	96.5	97.2	<input checked="" type="checkbox"/>
76	CCV 11	01/11/07 17:28	93.1	92.5	95.8	95.1	<input checked="" type="checkbox"/>
77	CCB 11	01/11/07 17:32	92.8	94.5	95.5	95.3	<input checked="" type="checkbox"/>
78	CCV 12	01/11/07 17:51	96.6				<input checked="" type="checkbox"/>
79	CCB 12	01/11/07 17:53	95.8				<input checked="" type="checkbox"/>
80	CCV 13	01/11/07 17:56	97.4				<input checked="" type="checkbox"/>
81	CCB 13	01/11/07 17:59	96.5				<input checked="" type="checkbox"/>
82	JLRJPC	01/11/07 18:01	95.8				<input checked="" type="checkbox"/>
83	JLRJPL	01/11/07 18:04	94.6				<input checked="" type="checkbox"/>
84	Rinse	01/11/07 18:07	94.1				<input checked="" type="checkbox"/>
85	JLRJPB	01/11/07 18:09	95.4				<input checked="" type="checkbox"/>
86	JLLNP	01/11/07 18:12	88.6				<input type="checkbox"/>
87	JLLNPP5	01/11/07 18:15	93.6				<input checked="" type="checkbox"/>
88	JLLNPX	01/11/07 18:17	87.3				<input checked="" type="checkbox"/>
89	JLLNPZ	01/11/07 18:20	87.3				<input checked="" type="checkbox"/>
90	JLLNR	01/11/07 18:22	88.5				<input checked="" type="checkbox"/>
91	JLLNT	01/11/07 18:25	87.7				<input checked="" type="checkbox"/>
92	CCV 14	01/11/07 18:28	101.7				<input checked="" type="checkbox"/>
93	CCB 14	01/11/07 18:30	99.3				<input checked="" type="checkbox"/>

**STL SACRAMENTO - Perkin Elmer Elan 6000 ICPMS, M01 – Methods 6020, 200.8**

**AIR TOX STANDARDS - 4 % HNO<sub>3</sub>, 0.5 % HCl**

**Standards for run:**

Tuning standard: 2830-29D

Internal standard: 2830-32A

Blank, CCBs: 2531-38A

Standard 1, CCVs: 2830-31E

ICV: 2830-32B

ICSA: 2830-30A

ICSAB: 2830-25A

File Number: 070111A1

**STL SACRAMENTO - Elan 6000 ICPMS Perkin Elmer M01 Quantitative Method Report**

File Name: 7011050.mth  
File Path: C:\elandata\Method\7011050.mth

**Timing Parameters**

Sweeps/Reading: 50  
Readings/Replicate: 1  
Number of Replicates: 3  
Tuning File: default.tun  
Optimization File: default.dac  
QC Enabled: Yes  
Settling Time: Normal

Analyte	Mass	Scan Mode	MCA Channels	Dwell Time	Integration Time
Sc	44.956	Peak Hopping	1	14.0 ms	700 ms
Li-1	6.015	Peak Hopping	1	14.0 ms	700 ms
Be	9.012	Peak Hopping	1	14.0 ms	700 ms
Al	26.982	Peak Hopping	1	14.0 ms	700 ms
Ca	42.959	Peak Hopping	1	14.0 ms	700 ms
V	50.944	Peak Hopping	1	14.0 ms	700 ms
Cr	51.941	Peak Hopping	1	14.0 ms	700 ms
Mn	54.938	Peak Hopping	1	14.0 ms	700 ms
Fe	53.940	Peak Hopping	1	14.0 ms	700 ms
Fe	56.935	Peak Hopping	1	14.0 ms	700 ms
Co	58.933	Peak Hopping	1	14.0 ms	700 ms
Ni	59.933	Peak Hopping	1	14.0 ms	700 ms
Cu	64.928	Peak Hopping	1	14.0 ms	700 ms
Zn	67.925	Peak Hopping	1	14.0 ms	700 ms
As	74.922	Peak Hopping	1	20.0 ms	1000 ms
Se	81.917	Peak Hopping	1	20.0 ms	1000 ms
Ge-1	71.922	Peak Hopping	1	14.0 ms	700 ms
Ag	106.905	Peak Hopping	1	14.0 ms	700 ms
Cd	110.904	Peak Hopping	1	14.0 ms	700 ms
Sb	120.904	Peak Hopping	1	14.0 ms	700 ms
Ba	134.906	Peak Hopping	1	14.0 ms	700 ms
In-1	114.904	Peak Hopping	1	14.0 ms	700 ms
Tl	204.975	Peak Hopping	1	14.0 ms	700 ms
Pb	207.977	Peak Hopping	1	14.0 ms	700 ms
Tm-1	168.934	Peak Hopping	1	14.0 ms	700 ms
Cr	49.946	Peak Hopping	1	5.0 ms	250 ms
Cr	52.941	Peak Hopping	1	5.0 ms	250 ms
Ni	60.931	Peak Hopping	1	5.0 ms	250 ms
Cu	62.930	Peak Hopping	1	5.0 ms	250 ms
Zn	66.927	Peak Hopping	1	5.0 ms	250 ms
Zn	65.926	Peak Hopping	1	5.0 ms	250 ms
Se	75.919	Peak Hopping	1	5.0 ms	250 ms
Se	76.920	Peak Hopping	1	20.0 ms	1000 ms
Se	77.917	Peak Hopping	1	20.0 ms	1000 ms
Br	78.918	Peak Hopping	1	20.0 ms	1000 ms
Ge	71.922	Peak Hopping	1	14.0 ms	700 ms
Cd	107.904	Peak Hopping	1	5.0 ms	250 ms
Cd	113.904	Peak Hopping	1	14.0 ms	700 ms
Ag	108.905	Peak Hopping	1	5.0 ms	250 ms

In	114.904	Peak Hopping	1	14.0 ms	700 ms
207.977	207.977	Peak Hopping	1	14.0 ms	700 ms
Pb	206.976	Peak Hopping	1	14.0 ms	700 ms
Pb	205.975	Peak Hopping	1	14.0 ms	700 ms
Tm	168.934	Peak Hopping	1	14.0 ms	700 ms
Pd	105.903	Peak Hopping	1	14.0 ms	700 ms
Kr	82.914	Peak Hopping	1	14.0 ms	700 ms
W	181.948	Peak Hopping	1	5.0 ms	250 ms

### Signal Processing

Detector Mode: Dual  
 Measurement Units: Counts  
 AutoLens: On  
 Spectral Peak Processing: Average  
 Signal Profile Processing: Average  
 Blank Subtraction: After Internal Standard  
 Baseline Readings: 0  
 Smoothing: Yes, Factor 5

### Equations

Analyte	Mass	Corrections
V	50.944	-3.108 * Cr 53 + 0.3524 * Cr 52
Fe	53.940	- 0.028226 * Cr 52
Fe	56.935	-0.074 * Ca 43
Ni	59.933	-0.005 * Ca 43
Cu	64.928	-0.0078 * Ti 49
As	74.922	-3.1278 * Se 77 + 1.0177 * Se 78
Se	81.917	- 0.00359 * Br 79
Cd	110.904	-1.073 * Pd 108 + 0.712 * Pd 106
In-1	114.904	- 0.014032 * Sn 118
Pb	207.977	+ 1.0 * Pb 207 + 1.0 * Pb 206
Cr	49.946	- 0.739726 * Ti 47 - 0.002506 * V 51
Se	75.919	- 0.268980 * Ge 72
Se	77.917	- 0.030435 * Kr 83
Cd	107.904	- 1.184953 * Pd 105
Cd	113.904	- 0.026826 * Sn 118
In	114.904	- 0.014032 * Sn 118

### Calibration Information

Analyte	Mass	Curve Type	Sample Units	Std Units	Std 1	Std 2	Std 3	Std 4
Sc	44.956	Linear Thru Zero	ug/L	ug/L				
Li-1	6.015	Linear Thru Zero	ug/L	ug/L				
Be	9.012	Linear Thru Zero	ug/L	ug/L	100			
Al	26.982	Linear Thru Zero	ug/L	ug/L	5.1e+003			
Ca	42.959	Linear Thru Zero	ug/L	ug/L	5.1e+003			
V	50.944	Linear Thru Zero	ug/L	ug/L	100			
Cr	51.941	Linear Thru Zero	ug/L	ug/L	100			
Mn	54.938	Linear Thru Zero	ug/L	ug/L	100			
Fe	53.940	Linear Thru Zero	ug/L	ug/L	5.1e+003			
Fe	56.935	Linear Thru Zero	ug/L	ug/L	5.1e+003			
Co	58.933	Linear Thru Zero	ug/L	ug/L	100			
Ni	59.933	Linear Thru Zero	ug/L	ug/L	100			
Cu	64.928	Linear Thru Zero	ug/L	ug/L	100			
Zn	67.925	Linear Thru Zero	ug/L	ug/L	100			

As	74.922	Linear Thru Zero	ug/L	ug/L	100
Se	81.917	Linear Thru Zero	ug/L	ug/L	100
Ge-1	71.922	Linear Thru Zero	ug/L	ug/L	
Ag	106.905	Linear Thru Zero	ug/L	ug/L	50
Cd	110.904	Linear Thru Zero	ug/L	ug/L	100
Sb	120.904	Linear Thru Zero	ug/L	ug/L	50
Ba	134.906	Linear Thru Zero	ug/L	ug/L	100
In-1	114.904	Linear Thru Zero	ug/L	ug/L	
Tl	204.975	Linear Thru Zero	ug/L	ug/L	50
Pb	207.977	Linear Thru Zero	ug/L	ug/L	100
Tm-1	168.934	Linear Thru Zero	ug/L	ug/L	
Cr	49.946	Linear Thru Zero	ug/L	ug/L	100
Cr	52.941	Linear Thru Zero	ug/L	ug/L	100
Ni	60.931	Linear Thru Zero	ug/L	ug/L	100
Cu	62.930	Linear Thru Zero	ug/L	ug/L	100
Zn	66.927	Linear Thru Zero	ug/L	ug/L	100
Zn	65.926	Linear Thru Zero	ug/L	ug/L	100
Se	75.919	Linear Thru Zero	ug/L	ug/L	100
Se	76.920	Linear Thru Zero	ug/L	ug/L	100
Se	77.917	Linear Thru Zero	ug/L	ug/L	100
Br	78.918	Linear Thru Zero	ug/L	ug/L	100
Ge	71.922	Linear Thru Zero	ug/L	ug/L	
Cd	107.904	Linear Thru Zero	ug/L	ug/L	100
Cd	113.904	Linear Thru Zero	ug/L	ug/L	100
Ag	108.905	Linear Thru Zero	ug/L	ug/L	50
In	114.904	Linear Thru Zero	ug/L	ug/L	
207.977	207.977	Linear Thru Zero	ug/L	ug/L	100
Pb	206.976	Linear Thru Zero	ug/L	ug/L	100
Pb	205.975	Linear Thru Zero	ug/L	ug/L	100
Tm	168.934	Linear Thru Zero	ug/L	ug/L	
Pd	105.903	Linear Thru Zero	ug/L	ug/L	100
Kr	82.914	Linear Thru Zero	ug/L	ug/L	100
W	181.948	Linear Thru Zero	ug/L	ug/L	

## Instrument Tuning Report - Elan 6000

File Name: default.tun

### Sample Information

Sample Date/Time: Thursday, January 11, 2007 11:18:16

Sample ID: TUNE BJONES

Analyte	Exact Mass	Meas. Mass	Mass DAC	Meas. Pk. Width	Res. DAC	Custom Res.
Li	7.016	6.926	1560	0.732	2031	
Be	9.012	8.928	2035	0.732	2020	
Co	58.933	58.979	14296	0.736	1890	
In	114.904	114.879	27953	0.734	1851	
Ce	139.905	139.979	34046	0.734	1897	
Tl	204.975	204.979	49736	0.717	2117	
Pb	207.977	207.978	50476	0.711	2137	
U	238.050	238.075	57691	0.701	2301	

## Elan 6000 Instrument Optimization Report

File Name default.dac

Path c:\elandata\Optimize

### Sample Information

Sample Date/Time: Thursday, January 11, 2007 11:18:16

Sample ID: TUNE BJONES

### Parameter Settings

Nebulizer Gas Flow	0.9
Lens Voltage	6.5
ICP RF Power	1100.0
Analog Stage Voltage	-2100.0
Pulse Stage Voltage	1450.0
Discriminator Threshold	70.0
AC Rod Offset	-7.0
Service DAC 1	60.0
Quadrupole Rod Offset	0.0

### AutoLens Calibration

Date: 11:21:44 Thu 11-Jan-07

Sample Filename: TUNE BJONES.002

Dataset Pathname: 070111a1\

Lens Voltage Start:	3.50 V
Lens Voltage End:	8.50 V
Lens Voltage Step:	0.25 V
Slope:	0.0166
Intercept:	5.5744

Analyte	Mass	Optimum Voltage	Maximum Intensity	# Points
Be	9.012	5.8 V	4832 cps	21
Co	58.933	6.5 V	159729 cps	21
In	114.904	7.5 V	300148 cps	21

### Dual Detector Calibration

Date: 15:27:19 Tue 26-Dec-06

Sample Filename: DUAL BJONES.790

Dataset Pathname: c:\elandata\Dataset\dual detector calibration\

Points Acquired:	37
Lens Voltage Start:	-3.00 V
Lens Voltage End:	15.00 V
Lens Voltage Step:	0.50 V

Analyte	Mass	Gain	N(max)
Li	6.016	7668	1.63e+009 cps
Li	7.014	7031	1.78e+009 cps
Be	9.014	6641	1.89e+009 cps
B	11.008	6908	1.81e+009 cps
Na	22.989	6977	1.79e+009 cps

Report Date/Time: Thursday, January 11, 2007 11:25:12

STL SACRAMENTO - Elan 6000 ICPMS, M01 - Methods 6020, 200.8

Mg	23.984	6554 1.91e+009 cps
Mg	24.987	6268 2.00e+009 cps
Al	26.980	6050 2.07e+009 cps
P	30.996	5500 2.28e+009 cps
K	38.965	5320 2.35e+009 cps
Ca	42.960	cps
Ca	43.955	5331 2.35e+009 cps
Sc	44.958	5317 2.35e+009 cps
V	50.942	5183 2.42e+009 cps
Cr	51.941	5026 2.49e+009 cps
Fe	53.938	4925 2.54e+009 cps
Mn	54.937	4884 2.56e+009 cps
Fe	56.935	4704 2.66e+009 cps
Co	58.934	4679 2.68e+009 cps
Ni	59.933	4577 2.74e+009 cps
Cu	62.931	4443 2.82e+009 cps
Cu	64.929	4415 2.84e+009 cps
Zn	67.926	4449 2.81e+009 cps
Ge	71.923	4537 2.76e+009 cps
As	74.920	4391 2.85e+009 cps
Se	77.917	4584 2.73e+009 cps
Br	78.916	cps
Se	81.918	4418 2.83e+009 cps
Sr	87.905	4471 2.80e+009 cps
Mo	96.905	4519 2.77e+009 cps
Ag	106.904	4067 3.08e+009 cps
Ag	108.907	4089 3.06e+009 cps
Cd	110.905	4109 3.05e+009 cps
Cd	113.902	4163 3.01e+009 cps
In	114.903	4196 2.98e+009 cps
Sn	117.903	4237 2.95e+009 cps
Sb	120.903	4117 3.04e+009 cps
Ba	134.905	4043 3.10e+009 cps
Tm	168.936	4015 3.12e+009 cps
Tl	204.976	3743 3.34e+009 cps
Pb	207.978	3760 3.33e+009 cps
Bi	208.981	cps
U	238.051	3764 3.33e+009 cps

## Daily Performance Report - Elan 6000

Sample ID: DAILY BJONES

Sample Date/Time: Thursday, January 11, 2007 11:25:45

Sample Description:

Sample File: C:\elandata\Sample\7010403X.sam

Method File: C:\elandata\Method\000-DAILY\_EPA.mth

Dataset File: C:\elandata\Dataset\070111a1\DJAILY BJONES.003

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Number of Replicates: 5

Dual Detector Mode: Dual

### Summary

Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Mg	24	43800.898	438.491	1.001
Rh	103	210520.705	3855.475	1.831
Pb	208	124029.533	1731.981	1.396
[> Ba	138	221221.311	2387.930	1.079
[< Ba++	69	0.022	0.000	1.095
[> Ce	140	278349.349	1327.688	0.477
[< CeO	156	0.029	0.001	4.472
Bkgd	220	1.429	1.010	70.711
Li	7	12120.445	118.287	0.976
Be	9	3669.396	72.036	1.963
Co	59	131642.170	1176.270	0.894
In	115	278500.945	2624.735	0.942
Tl	205	176106.241	1754.401	0.996

SOP No. SAC-MT-0001

BJones

**Sample ID: Rinse 2X**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 12:06:47

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\Rinse 2X.005

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 6

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1665344.943	ug/L	0.000
6 Li-1			775194.840	ug/L	0.000
9 Be			1.333	ug/L	0.000
27 Al			118552.474	ug/L	0.000
43 Ca			453.012	ug/L	0.000
51 V			-17933.987	ug/L	0.000
52 Cr			17349.183	ug/L	0.000
55 Mn			1849.862	ug/L	0.000
54 Fe			90002.192	ug/L	0.000
57 Fe			18931.341	ug/L	0.000
59 Co			124.668	ug/L	0.000
60 Ni			75.735	ug/L	0.000
65 Cu			231.357	ug/L	0.000
68 Zn			1827.191	ug/L	0.000
75 As			13348.373	ug/L	0.000
82 Se			650.866	ug/L	0.000
72 Ge-1			1418795.959	ug/L	0.000
107 Ag			50.000	ug/L	0.000
111 Cd			63.040	ug/L	0.000
121 Sb			174.002	ug/L	0.000
135 Ba			155.001	ug/L	0.000
115 In-1			1423707.849	ug/L	0.000
205 Tl			397.676	ug/L	0.000
208 Pb			1495.383	ug/L	0.000
169 Tm-1			982724.962	ug/L	0.000
50 Cr			-538.020	ug/L	0.000
53 Cr			72770.788	ug/L	0.000
61 Ni			2342.545	ug/L	0.000
63 Cu			169.338	ug/L	0.000
67 Zn			1329.284	ug/L	0.000
66 Zn			420.362	ug/L	0.000
76 Se			-187139.404	ug/L	0.000
77 Se			6174.525	ug/L	0.000
78 Se			14722.864	ug/L	0.000
79 Br			70886.127	ug/L	0.000

[> 72 Ge	1418795.959	ug/L	0.000
108 Cd	-1.838	ug/L	0.000
114 Cd	171.341	ug/L	0.000
109 Ag	24.000	ug/L	0.000
[> 115 In	1423707.849	ug/L	0.000
208 207.977	771.701	ug/L	0.000
207 Pb	323.006	ug/L	0.000
206 Pb	400.676	ug/L	0.000
[> 169 Tm	982724.962	ug/L	0.000
106 Pd	10.000	ug/L	0.000
83 Kr	563.679	ug/L	0.000
182 W	3.000	ug/L	0.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45
[> Li-1	6
Be	9
Al	27
Ca	43
V	51
Cr	52
Mn	55
Fe	54
Fe	57
Co	59
Ni	60
Cu	65
Zn	68
As	75
Se	82
[> Ge-1	72
Ag	107
Cd	111
Sb	121
Ba	135
[> In-1	115
Tl	205
Pb	208
[> Tm-1	169
Cr	50
Cr	53
Ni	61
Cu	63
Zn	67
Zn	66
Se	76
Se	77
Se	78
Br	79
[> Ge	72
Cd	108
Cd	114
Ag	109
[> In	115
207.977	208
Pb	207
Pb	206
[> Tm	169
Pd	106
Kr	83

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: Blank**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 12:11:19

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\Blank.006

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 5

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1697737.040	ug/L	
6 Li-1			793017.605	ug/L	
9 Be			1.333	ug/L	
27 Al			10460.249	ug/L	
43 Ca			402.676	ug/L	
51 V			-12912.827	ug/L	
52 Cr			16678.547	ug/L	
55 Mn			1050.396	ug/L	
54 Fe			80292.579	ug/L	
57 Fe			16315.461	ug/L	
59 Co			61.334	ug/L	
60 Ni			54.653	ug/L	
65 Cu			144.312	ug/L	
68 Zn			1351.771	ug/L	
75 As			13025.167	ug/L	
82 Se			652.232	ug/L	
72 Ge-1			1423760.527	ug/L	
107 Ag			27.333	ug/L	
111 Cd			45.471	ug/L	
121 Sb			78.334	ug/L	
135 Ba			106.001	ug/L	
115 In-1			1427336.731	ug/L	
205 Tl			284.671	ug/L	
208 Pb			882.684	ug/L	
169 Tm-1			990749.403	ug/L	
50 Cr			-480.210	ug/L	
53 Cr			66744.972	ug/L	
61 Ni			2391.248	ug/L	
63 Cu			116.669	ug/L	
67 Zn			1139.542	ug/L	
66 Zn			200.673	ug/L	
76 Se			-188842.544	ug/L	
77 Se			5872.713	ug/L	
78 Se			14769.755	ug/L	
79 Br			66278.604	ug/L	

72 Ge	1423760.527	ug/L
108 Cd	3.173	ug/L
114 Cd	136.004	ug/L
109 Ag	10.333	ug/L
115 In	1427336.731	ug/L
208 207.977	451.679	ug/L
207 Pb	187.002	ug/L
206 Pb	244.003	ug/L
169 Tm	990749.403	ug/L
106 Pd	8.333	ug/L
83 Kr	602.015	ug/L
182 W	3.000	ug/L

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45
[> Li-1	6
Be	9
Al	27
Ca	43
V	51
Cr	52
Mn	55
Fe	54
Fe	57
Co	59
Ni	60
Cu	65
Zn	68
As	75
Se	82
[> Ge-1	72
Ag	107
Cd	111
Sb	121
Ba	135
[> In-1	115
Tl	205
Pb	208
[> Tm-1	169
Cr	50
Cr	53
Ni	61
Cu	63
Zn	67
Zn	66
Se	76
Se	77
Se	78
Br	79
[> Ge	72
Cd	108
Cd	114
Ag	109
[> In	115
207.977	208
Pb	207
Pb	206
[> Tm	169
Pd	106
Kr	83

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: Standard 1**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 12:15:47

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\Standard 1.007

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 4

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1801480.040	ug/L	1697737.040
6 Li-1			796061.492	ug/L	793017.605
9 Be	100.000000	0.947	27061.451	ug/L	1.333
27 Al	5100.000000	0.850	23770891.400	ug/L	10460.249
43 Ca	5100.000000	1.492	82283.463	ug/L	402.676
51 V	100.000000	1.403	954274.237	ug/L	-12912.827
52 Cr	100.000000	1.063	884141.265	ug/L	16678.547
55 Mn	100.000000	1.117	1372226.793	ug/L	1050.396
54 Fe	5100.000000	0.718	3401744.597	ug/L	80292.579
57 Fe	5100.000000	0.625	1436400.491	ug/L	16315.461
59 Co	100.000000	0.463	1055553.727	ug/L	61.334
60 Ni	100.000000	1.063	222700.992	ug/L	54.653
65 Cu	100.000000	0.785	218677.867	ug/L	144.312
68 Zn	100.000000	0.443	83272.393	ug/L	1351.771
75 As	100.000000	1.157	206103.654	ug/L	13025.167
82 Se	100.000000	1.783	20064.198	ug/L	652.232
72 Ge-1			1469936.039	ug/L	1423760.527
107 Ag	50.000000	0.222	414215.071	ug/L	27.333
111 Cd	100.000000	0.746	173524.287	ug/L	45.471
121 Sb	50.000000	1.820	259644.903	ug/L	78.334
135 Ba	100.000000	1.015	157959.776	ug/L	106.001
115 In-1			1440506.083	ug/L	1427336.731
205 Tl	50.000000	0.973	701716.447	ug/L	284.671
208 Pb	100.000000	1.177	1790170.082	ug/L	882.684
169 Tm-1			1007387.014	ug/L	990749.403
50 Cr	100.000000	1.051	18156.582	ug/L	-480.210
53 Cr	100.000000	1.444	175615.496	ug/L	66744.972
61 Ni	100.000000	1.897	5946.653	ug/L	2391.248
63 Cu	100.000000	0.477	163187.777	ug/L	116.669
67 Zn	100.000000	2.486	7901.979	ug/L	1139.542
66 Zn	100.000000	0.867	39568.286	ug/L	200.673
76 Se	100.000000	19.279	-190153.982	ug/L	-188842.544
77 Se	100.000000	0.516	20870.744	ug/L	5872.713
78 Se	100.000000	1.420	62871.306	ug/L	14769.755
79 Br	100.000000	57.566	66133.169	ug/L	66278.604

[>]	72 Ge			1469936.039	ug/L	1423760.527
[>]	108 Cd	100.000000	1.063	12019.205	ug/L	3.173
[>]	114 Cd	100.000000	0.245	414065.798	ug/L	136.004
[>]	109 Ag	50.000000	0.536	142633.827	ug/L	10.333
[>]	115 In			1440506.083	ug/L	1427336.731
[>]	208 207.977	100.000000	1.314	914520.321	ug/L	451.679
[>]	207 Pb	100.000000	1.455	377617.814	ug/L	187.002
[>]	206 Pb	100.000000	0.836	498031.947	ug/L	244.003
[>]	169 Tm			1007387.014	ug/L	990749.403
[>]	106 Pd	100.000000	0.832	15541.123	ug/L	8.333
[>]	83 Kr	100.000000	867.186	608.682	ug/L	602.015
[>]	182 W			64.001	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
[>]	Li-1	6
[>]	Be	9
[>]	Al	27
[>]	Ca	43
[>]	V	51
[>]	Cr	52
[>]	Mn	55
[>]	Fe	54
[>]	Fe	57
[>]	Co	59
[>]	Ni	60
[>]	Cu	65
[>]	Zn	68
[>]	As	75
[>]	Se	82
[>]	Ge-1	72
[>]	Ag	107
[>]	Cd	111
[>]	Sb	121
[>]	Ba	135
[>]	In-1	115
[>]	Tl	205
[>]	Pb	208
[>]	Tm-1	169
[>]	Cr	50
[>]	Cr	53
[>]	Ni	61
[>]	Cu	63
[>]	Zn	67
[>]	Zn	66
[>]	Se	76
[>]	Se	77
[>]	Se	78
[>]	Br	79
[>]	Ge	72
[>]	Cd	108
[>]	Cd	114
[>]	Ag	109
[>]	In	115
[>]	207.977	208
[>]	Pb	207
[>]	Pb	206
[>]	Tm	169
[>]	Pd	106
[>]	Kr	83

W 182

BJones

**Sample ID: ICV**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 12:19:58

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\ICV .008

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 3

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1657827.868	ug/L	1697737.040
6 Li-1			773658.638	ug/L	793017.605
9 Be	80.240418	0.300	21104.088	ug/L	1.333
27 Al	786.884179	0.792	3520022.521	ug/L	10460.249
43 Ca	810.320180	2.001	12849.762	ug/L	402.676
51 V	79.699574	0.648	725511.664	ug/L	-12912.827
52 Cr	79.071892	0.578	672758.969	ug/L	16678.547
55 Mn	79.602984	0.293	1045992.669	ug/L	1050.396
54 Fe	872.292155	0.596	622824.614	ug/L	80292.579
57 Fe	833.518466	0.652	238249.775	ug/L	16315.461
59 Co	78.585467	0.772	794182.331	ug/L	61.334
60 Ni	78.608273	0.727	167614.466	ug/L	54.653
65 Cu	79.873165	0.668	167257.969	ug/L	144.312
68 Zn	80.412382	0.139	64370.279	ug/L	1351.771
75 As	76.056114	0.477	153154.040	ug/L	13025.167
82 Se	77.685560	1.179	15066.964	ug/L	652.232
72 Ge-1			1407300.577	ug/L	1423760.527
107 Ag	39.571948	0.444	316934.525	ug/L	27.333
111 Cd	79.389934	0.722	133190.272	ug/L	45.471
121 Sb	37.670965	3.341	189118.975	ug/L	78.334
135 Ba	77.935800	1.101	119033.552	ug/L	106.001
115 In-1			1392599.323	ug/L	1427336.731
205 Tl	40.880913	0.941	556223.881	ug/L	284.671
208 Pb	83.251005	0.607	1444876.010	ug/L	882.684
169 Tm-1			976516.024	ug/L	990749.403
50 Cr	69.148891	0.473	11872.968	ug/L	-480.210
53 Cr	76.251114	1.666	143885.080	ug/L	66744.972
61 Ni	73.672182	2.388	4817.379	ug/L	2391.248
63 Cu	79.206520	0.927	123771.154	ug/L	116.669
67 Zn	79.801180	1.381	6265.610	ug/L	1139.542
66 Zn	80.441534	1.486	30510.245	ug/L	200.673
76 Se	15.463063	172.184	-185949.718	ug/L	-188842.544
77 Se	76.184492	1.417	16603.687	ug/L	5872.713
78 Se	77.508493	1.237	49932.801	ug/L	14769.755
79 Br	76.951074	52.419	63830.625	ug/L	66278.604

[> 72 Ge			1407300.577	ug/L	1423760.527
108 Cd	76.721316	0.659	8915.919	ug/L	3.173
114 Cd	78.774010	0.800	315350.232	ug/L	136.004
109 Ag	40.198895	1.016	110861.958	ug/L	10.333
[> 115 In			1392599.323	ug/L	1427336.731
208 207.977	82.795541	0.712	734092.738	ug/L	451.679
207 Pb	83.310956	0.583	305004.537	ug/L	187.002
206 Pb	84.041923	0.491	405778.735	ug/L	244.003
[> 169 Tm			976516.024	ug/L	990749.403
106 Pd	75.514678	1.893	11737.870	ug/L	8.333
83 Kr	-254.997323	109.891	585.014	ug/L	602.015
182 W			15.333	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
[> Li-1	6	97.559
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
[> Ge-1	72	98.844
Ag	107	
Cd	111	
Sb	121	
Ba	135	
[> In-1	115	97.566
Tl	205	
Pb	208	
[> Tm-1	169	98.563
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
[> Ge	72	98.844
Cd	108	
Cd	114	
Ag	109	
[> In	115	97.566
207.977	208	
Pb	207	
Pb	206	
[> Tm	169	98.563
Pd	106	
Kr	83	

W 182

BJones

**Sample ID: ICB**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 12:24:14

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\ICB.009

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 5

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc.	Mean	Conc.	RSD	Meas.	Intens.	Mean	Sample Unit	Blank Intensity
45 Sc					1625018.837		ug/L	1697737.040	
6 Li-1					762822.771		ug/L	793017.605	
9 Be	-0.003663	60.678			0.333		ug/L	1.333	
27 Al	-0.010822	186.384			10234.983		ug/L	10460.249	
43 Ca	1.712744	62.082			422.010		ug/L	402.676	
51 V	-0.080889	353.018			-13435.660		ug/L	-12912.827	
52 Cr	0.003393	446.561			16423.733		ug/L	16678.547	
55 Mn	-0.000120	2654.508			1031.061		ug/L	1050.396	
54 Fe	-3.159332	13.006			76973.236		ug/L	80292.579	
57 Fe	-3.498595	4.827			15111.530		ug/L	16315.461	
59 Co	0.002358	28.647			84.000		ug/L	61.334	
60 Ni	-0.001022	164.973			51.557		ug/L	54.653	
65 Cu	0.007475	79.858			157.418		ug/L	144.312	
68 Zn	-0.057428	92.995			1284.094		ug/L	1351.771	
75 As	0.171020	53.493			13117.835		ug/L	13025.167	
82 Se	-0.020461	746.756			637.433		ug/L	652.232	
72 Ge-1					1399620.225		ug/L	1423760.527	
107 Ag	0.004494	22.298			62.667		ug/L	27.333	
111 Cd	0.003280	128.519			49.875		ug/L	45.471	
121 Sb	0.726951	19.923			3725.813		ug/L	78.334	
135 Ba	0.002122	192.363			106.667		ug/L	106.001	
115 In-1					1392765.622		ug/L	1427336.731	
205 Tl	0.032594	13.496			728.364		ug/L	284.671	
208 Pb	-0.013443	17.787			641.343		ug/L	882.684	
169 Tm-1					982907.640		ug/L	990749.403	
50 Cr	-0.034067	497.078			-478.078		ug/L	-480.210	
53 Cr	-0.918745	160.653			64678.238		ug/L	66744.972	
61 Ni	-4.878556	41.596			2189.100		ug/L	2391.248	
63 Cu	-0.000871	486.838			113.335		ug/L	116.669	
67 Zn	1.270533	75.014			1201.565		ug/L	1139.542	
66 Zn	-0.033632	172.383			184.672		ug/L	200.673	
76 Se	-17.377441	63.383			-186436.961		ug/L	-188842.544	
77 Se	-1.102877	40.937			5617.595		ug/L	5872.713	
78 Se	-0.579175	46.750			14256.568		ug/L	14769.755	
79 Br	0.117925	28846.769			65152.031		ug/L	66278.604	

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Sample ID: ICB

G6L220174

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72 Ge			1399620.225	ug/L	1423760.527
108 Cd	-0.020487	84.339	0.717	ug/L	3.173
114 Cd	0.002349	194.272	142.114	ug/L	136.004
109 Ag	0.004321	29.037	22.000	ug/L	10.333
115 In			1392765.622	ug/L	1427336.731
208 207.977	-0.012830	38.490	334.006	ug/L	451.679
207 Pb	-0.013640	11.501	135.334	ug/L	187.002
206 Pb	-0.014420	15.787	172.002	ug/L	244.003
169 Tm			982907.640	ug/L	990749.403
106 Pd	0.008584	188.746	9.667	ug/L	8.333
83 Kr	-1024.986658	22.162	533.678	ug/L	602.015
182 W			3.333	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
[> Li-1	6	96.192
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
[> Ge-1	72	98.304
Ag	107	
Cd	111	
Sb	121	
Ba	135	
[> In-1	115	97.578
Tl	205	
Pb	208	
[> Tm-1	169	99.209
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
[> Ge	72	98.304
Cd	108	
Cd	114	
Ag	109	
[> In	115	97.578
207.977	208	
Pb	207	
Pb	206	
[> Tm	169	99.209
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: LLS 5X**

Sample Description: Low level 5X

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 12:29:08

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\LLS 5X.010

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 9

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1679667.854	ug/L	1697737.040
6 Li-1			806887.182	ug/L	793017.605
9 Be	1.957870	4.173	538.350	ug/L	1.333
27 Al	163.305157	26.941	776335.827	ug/L	10460.249
43 Ca	114.113534	2.045	2263.960	ug/L	402.676
51 V	21.332492	0.755	194499.726	ug/L	-12912.827
52 Cr	1.857980	3.044	33569.608	ug/L	16678.547
55 Mn	2.104574	1.940	30159.895	ug/L	1050.396
54 Fe	117.788274	1.966	160716.581	ug/L	80292.579
57 Fe	110.633470	0.859	47988.955	ug/L	16315.461
59 Co	1.983002	1.465	21147.191	ug/L	61.334
60 Ni	1.986384	✓ 2.361	4511.516	ug/L	54.653
65 Cu	2.066224	✓ 3.042	4697.874	ug/L	144.312
68 Zn	9.825074	✓ 2.618	9508.832	ug/L	1351.771
75 As	1.240276	✓ 12.163	15952.472	ug/L	13025.167
82 Se	1.453374	6.930	962.308	ug/L	652.232
72 Ge-1			1480763.252	ug/L	1423760.527
107 Ag	0.986233	1.022	8543.169	ug/L	27.333
111 Cd	1.916496	1.729	3512.687	ug/L	45.471
121 Sb	0.941683	4.037	5176.866	ug/L	78.334
135 Ba	1.943979	2.157	3309.960	ug/L	106.001
115 In-1			1501295.028	ug/L	1427336.731
205 Tl	1.047663	0.694	15572.846	ug/L	284.671
208 Pb	2.131176	0.288	40558.103	ug/L	882.684
169 Tm-1			1046766.639	ug/L	990749.403
50 Cr	2.077038	11.050	-109.123	ug/L	-480.210
53 Cr	-6.199886	19.743	62746.540	ug/L	66744.972
61 Ni	5.622863	63.349	2683.486	ug/L	2391.248
63 Cu	2.075136	1.742	3529.993	ug/L	116.669
67 Zn	9.989348	8.299	1861.888	ug/L	1139.542
66 Zn	10.085907	0.549	4207.831	ug/L	200.673
76 Se	-59.544531	93.498	-199303.326	ug/L	-188842.544
77 Se	-3.917850	7.652	5523.220	ug/L	5872.713
78 Se	-1.670290	15.363	14559.526	ug/L	14769.755
79 Br	482.203018	8.506	57810.380	ug/L	66278.604

[> 72 Ge			1480763.252	ug/L	1423760.527
108 Cd	1.792566	5.843	227.807	ug/L	3.173
114 Cd	1.916536	1.156	8410.584	ug/L	136.004
109 Ag	0.980322	2.218	2925.035	ug/L	10.333
[> 115 In			1501295.028	ug/L	1427336.731
208 207.977	2.140707	0.884	20811.725	ug/L	451.679
207 Pb	2.094976	1.656	8413.710	ug/L	187.002
206 Pb	2.141123	1.425	11332.668	ug/L	244.003
[> 169 Tm			1046766.639	ug/L	990749.403
106 Pd	1.950748	4.307	311.339	ug/L	8.333
83 Kr	-1324.981567	22.078	513.677	ug/L	602.015
182 W			3.333	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
[> Li-1	6	101.749
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
[> Ge-1	72	104.004
Ag	107	
Cd	111	
Sb	121	
Ba	135	
[> In-1	115	105.182
Tl	205	
Pb	208	
[> Tm-1	169	105.654
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
[> Ge	72	104.004
Cd	108	
Cd	114	
Ag	109	
[> In	115	105.182
207.977	208	
Pb	207	
Pb	206	
[> Tm	169	105.654
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: LLS 10X**

Sample Description: Low Level 10X

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 12:32:47

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\LLS 10X.011

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 10

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1684229.603	ug/L	1697737.040
6 Li-1			795454.781	ug/L	793017.605
9 Be	0.994815	✓ 1.600	270.338	ug/L	1.333
27 Al	55.672461	✓ 1.787	270774.702	ug/L	10460.249
43 Ca	48.206137	6.095	1192.415	ug/L	402.676
51 V	10.630310	1.289	89728.876	ug/L	-12912.827
52 Cr	0.862772	1.683	24756.306	ug/L	16678.547
55 Mn	1.013468	0.941	15015.540	ug/L	1050.396
54 Fe	52.660526	3.543	117434.338	ug/L	80292.579
57 Fe	52.623188	1.604	31565.247	ug/L	16315.461
59 Co	0.982547	0.657	10458.580	ug/L	61.334
60 Ni	0.965091	2.678	2209.985	ug/L	54.653
65 Cu	1.010587	0.540	2362.960	ug/L	144.312
68 Zn	4.991149	3.107	5494.725	ug/L	1351.771
75 As	0.311656	45.635	14080.423	ug/L	13025.167
82 Se	0.420054	63.463	756.344	ug/L	652.232
72 Ge-1			1473384.654	ug/L	1423760.527
107 Ag	0.495035	✓ 2.165	4262.371	ug/L	27.333
111 Cd	0.971621	✓ 1.712	1787.993	ug/L	45.471
121 Sb	0.518647	2.321	2862.135	ug/L	78.334
135 Ba	0.965728	2.056	1684.496	ug/L	106.001
115 In-1			1487390.304	ug/L	1427336.731
205 Tl	0.518057	0.988	7895.895	ug/L	284.671
208 Pb	1.033815	0.812	20263.986	ug/L	882.684
169 Tm-1			1052460.058	ug/L	990749.403
50 Cr	0.903184	46.795	-328.525	ug/L	-480.210
53 Cr	-3.695030	15.444	65118.093	ug/L	66744.972
61 Ni	2.176047	113.569	2550.041	ug/L	2391.248
63 Cu	1.009615	4.173	1771.169	ug/L	116.669
67 Zn	5.594972	14.829	1556.388	ug/L	1139.542
66 Zn	5.231282	2.276	2271.826	ug/L	200.673
76 Se	-86.901994	14.415	-199617.039	ug/L	-188842.544
77 Se	-2.743215	19.961	5669.952	ug/L	5872.713
78 Se	-2.333225	7.222	14170.773	ug/L	14769.755
79 Br	276.938062	16.056	62231.876	ug/L	66278.604

[> 72 Ge			1473384.654	ug/L	1423760.527
108 Cd	0.887572	10.630	113.409	ug/L	3.173
114 Cd	0.941881	2.240	4167.610	ug/L	136.004
109 Ag	0.496004	0.360	1471.680	ug/L	10.333
[> 115 In			1487390.304	ug/L	1427336.731
208 207.977	1.034341	1.229	10357.794	ug/L	451.679
207 Pb	1.029492	1.392	4258.369	ug/L	187.002
206 Pb	1.036129	1.597	5647.822	ug/L	244.003
[> 169 Tm			1052460.058	ug/L	990749.403
106 Pd	1.030089	0.955	168.335	ug/L	8.333
83 Kr	-844.989426	29.509	545.679	ug/L	602.015
182 W			3.667	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
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[> Li-1	6	100.307
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[> Be	9	
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[> Al	27	
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[> Ca	43	
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[> V	51	
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[> Cr	52	
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[> Mn	55	
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[> Fe	54	
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[> Fe	57	
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[> Co	59	
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[> Ni	60	
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[> Cu	65	
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[> Zn	68	
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[> As	75	
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[> Se	82	
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[> Ge-1	72	103.485
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[> Ag	107	
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[> Cd	111	
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[> Sb	121	
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[> Ba	135	
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[> In-1	115	104.207
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[> Tl	205	
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[> Pb	208	
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[> Tm-1	169	106.229
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[> Cr	50	
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[> Cr	53	
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[> Ni	61	
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[> Cu	63	
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[> Zn	67	
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[> Zn	66	
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[> Se	76	
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[> Se	77	
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[> Se	78	
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[> Br	79	
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[> Ge	72	103.485
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[> Cd	108	
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[> Cd	114	
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[> Ag	109	
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[> In	115	104.207
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[> 207.977	208	
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[> Pb	207	
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[> Pb	206	
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[> Tm	169	106.229
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[> Pd	106	
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[> Kr	83	
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W 182

BJones

**Sample ID: ICSA**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 12:40:34

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\ICSA.012

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 2

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc.	Mean	Conc.	RSD	Meas. Intens.	Mean	Sample Unit	Blank Intensity
45 Sc					1719068.121	ug/L	1697737.040	
6 Li-1					654303.372	ug/L	793017.605	
9 Be	0.032538	21.493			8.333	ug/L	1.333	
27 Al	106792.031073	1.098			448968361.130	ug/L	10460.249	
43 Ca	95078.688262	1.261			1377662.875	ug/L	402.676	
51 V	0.150476	114.527			-10706.334	ug/L	-12912.827	
52 Cr	3.068787	5.417			39557.330	ug/L	16678.547	
55 Mn	5.050753	1.535			63473.763	ug/L	1050.396	
54 Fe	97337.064667	1.208			57232942.125	ug/L	80292.579	
57 Fe	95089.663800	1.318			23899238.711	ug/L	16315.461	
59 Co	2.558102	1.367			24423.043	ug/L	61.334	
60 Ni	3.441241	3.789			6964.645	ug/L	54.653	
65 Cu	0.008461	878.263			152.340	ug/L	144.312	
68 Zn	4.717784	1.564			4745.287	ug/L	1351.771	
75 As	0.474319	21.054			12960.748	ug/L	13025.167	
82 Se	0.100114	888.936			541.137	ug/L	563.419	
72 Ge-1					1326538.815	ug/L	1423760.527	
107 Ag	0.148182	6.277			1135.074	ug/L	27.333	
111 Cd	0.317681	22.606			541.219	ug/L	45.471	
121 Sb	0.337457	3.128			1656.490	ug/L	78.334	
135 Ba	0.779902	7.189			1211.751	ug/L	106.001	
115 In-1					1303688.493	ug/L	1427336.731	
205 Tl	0.007880	9.055			333.006	ug/L	284.671	
208 Pb	0.806982	2.358			12767.604	ug/L	882.684	
169 Tm-1					838746.409	ug/L	990749.403	
50 Cr	342.949311	4.844			57293.050	ug/L	-480.210	
53 Cr	26.080668	11.235			87279.918	ug/L	66744.972	
61 Ni	40.863033	7.322			3510.973	ug/L	2391.248	
63 Cu	5.839203	1.635			8702.439	ug/L	116.669	
67 Zn	34.042748	6.955			3126.898	ug/L	1139.542	
66 Zn	9.776060	1.415			3659.141	ug/L	200.673	
76 Se	-290.377309	8.158			-188553.731	ug/L	-188842.544	
77 Se	58.123596	3.059			13239.344	ug/L	5872.713	
78 Se	3.181864	8.398			15128.781	ug/L	14769.755	
79 Br	-146934.646024	0.580			3096368.364	ug/L	66278.604	

[>]	72 Ge			1326538.815	ug/L	1423760.527	
[>]	108 Cd	55.988180	2.719	6092.370	ug/L	3.173	
[>]	114 Cd	3.094996	1.107	11718.505	ug/L	136.004	
[>]	109 Ag	0.129448	3.090	343.686	ug/L	10.333	
[>]	115 In			1303688.493	ug/L	1427336.731	
[>]	208 Tl	207.977	0.823136	2.822	6645.523	ug/L	451.679
[>]	207 Pb		0.828068	4.058	2759.769	ug/L	187.002
[>]	206 Pb		0.761328	1.430	3362.313	ug/L	244.003
[>]	169 Tm			838746.409	ug/L	990749.403	
[>]	106 Pd		0.579423	13.441	98.334	ug/L	8.333
[>]	83 Kr	6120.035523		5.701	1010.041	ug/L	602.015
[>]	182 W				599.391	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45		
[>]	Li-1	6	82.508
[>]	Be	9	
[>]	Al	27	
[>]	Ca	43	
[>]	V	51	
[>]	Cr	52	
[>]	Mn	55	
[>]	Fe	54	
[>]	Fe	57	
[>]	Co	59	
[>]	Ni	60	
[>]	Cu	65	
[>]	Zn	68	
[>]	As	75	
[>]	Se	82	
[>]	Ge-1	72	93.171
[>]	Ag	107	
[>]	Cd	111	
[>]	Sb	121	
[>]	Ba	135	
[>]	In-1	115	91.337
[>]	Tl	205	
[>]	Pb	208	
[>]	Tm-1	169	84.658
[>]	Cr	50	
[>]	Cr	53	
[>]	Ni	61	
[>]	Cu	63	
[>]	Zn	67	
[>]	Zn	66	
[>]	Se	76	
[>]	Se	77	
[>]	Se	78	
[>]	Br	79	
[>]	Ge	72	93.171
[>]	Cd	108	
[>]	Cd	114	
[>]	Ag	109	
[>]	In	115	91.337
[>]	207.977	208	
[>]	Pb	207	
[>]	Pb	206	
[>]	Tm	169	84.658
[>]	Pd	106	
[>]	Kr	83	

W 182

BJones

**Sample ID: ICSAB**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 12:44:48

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\ICSAB.013

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 1

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

### Sample Result Summary

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1783613.190	ug/L	1697737.040
6 Li-1			663005.499	ug/L	793017.605
9 Be	96.641448	0.536	21781.746	ug/L	1.333
27 Al	107215.565568	0.768	459446054.349	ug/L	10460.249
43 Ca	96239.028600	0.238	1421422.967	ug/L	402.676
51 V	108.401656	0.156	952507.184	ug/L	-12912.827
52 Cr	106.479119	0.281	864902.986	ug/L	16678.547
55 Mn	106.796739	0.820	1347918.187	ug/L	1050.396
54 Fe	98302.986641	0.428	58918220.129	ug/L	80292.579
57 Fe	96232.301676	0.406	24653998.883	ug/L	16315.461
59 Co	101.405055	0.130	984581.175	ug/L	61.334
60 Ni	97.360969	0.440	199436.519	ug/L	54.653
65 Cu	88.737785	0.087	178503.545	ug/L	144.312
68 Zn	92.283760	0.396	70785.178	ug/L	1351.771
75 As	97.523101	0.367	185190.921	ug/L	13025.167
82 Se	100.571196	1.243	18559.260	ug/L	652.232
72 Ge-1			1352082.351	ug/L	1423760.527
107 Ag	44.346256	0.606	337920.605	ug/L	27.333
111 Cd	91.782007	0.839	146498.604	ug/L	45.471
121 Sb	48.715878	1.209	232698.421	ug/L	78.334
135 Ba	100.050252	0.974	145367.280	ug/L	106.001
115 In-1			1325005.394	ug/L	1427336.731
205 Tl	44.438122	1.766	525413.044	ug/L	284.671
208 Pb	92.131909	0.804	1389473.328	ug/L	882.684
169 Tm-1			848608.773	ug/L	990749.403
50 Cr	449.332858	5.174	76643.413	ug/L	-480.210
53 Cr	117.834242	3.059	179036.024	ug/L	66744.972
61 Ni	132.219717	4.752	6500.424	ug/L	2391.248
63 Cu	95.597453	0.307	143502.973	ug/L	116.669
67 Zn	122.335449	0.887	8650.958	ug/L	1139.542
66 Zn	100.295722	0.641	36502.628	ug/L	200.673
76 Se	-176.788938	1.971	-187163.482	ug/L	-188842.544
77 Se	155.251491	0.332	26722.534	ug/L	5872.713
78 Se	102.115105	0.102	58756.378	ug/L	14769.755
79 Br	-2688.113155	7.738	119516.023	ug/L	66278.604

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Sample ID: ICSAB

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[> 72 Ge			1352082.351	ug/L	1423760.527
108 Cd	148.296316	0.722	16394.235	ug/L	3.173
114 Cd	93.015028	0.633	354268.452	ug/L	136.004
109 Ag	44.103486	0.425	115727.583	ug/L	10.333
[> 115 In			1325005.394	ug/L	1427336.731
208 207.977	91.922110	0.986	708206.147	ug/L	451.679
207 Pb	91.946570	0.882	292507.147	ug/L	187.002
206 Pb	92.657696	0.587	388760.034	ug/L	244.003
[> 169 Tm			848608.773	ug/L	990749.403
106 Pd	86.765166	0.852	13485.384	ug/L	8.333
83 Kr	6845.052974	5.056	1058.378	ug/L	602.015
182 W			644.400	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
[> Li-1	6	83.605
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
[> Ge-1	72	94.966
Ag	107	
Cd	111	
Sb	121	
Ba	135	
[> In-1	115	92.831
Tl	205	
Pb	208	
[> Tm-1	169	85.653
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
[> Ge	72	94.966
Cd	108	
Cd	114	
Ag	109	
[> In	115	92.831
207.977	208	
Pb	207	
Pb	206	
[> Tm	169	85.653
Pd	106	
Kr	83	

W 182

BJones

**Sample ID: Rinse**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 12:49:03

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\Rinse.014

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 6

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			2033608.070	ug/L	1697737.040
6 Li-1			849324.703	ug/L	793017.605
9 Be	0.008922	39.251	4.000	ug/L	1.333
27 Al	29.760633	2.593	159399.867	ug/L	10460.249
43 Ca	6.637663	26.276	557.018	ug/L	402.676
51 V	0.016308	712.368	-14043.249	ug/L	-12912.827
52 Cr	1.054391	16.244	28117.881	ug/L	16678.547
55 Mn	0.065449	7.691	2113.922	ug/L	1050.396
54 Fe	14.396391	30.617	98412.029	ug/L	80292.579
57 Fe	0.627426	459.518	18154.715	ug/L	16315.461
59 Co	0.007765	19.240	155.001	ug/L	61.334
60 Ni	0.007015	84.833	76.882	ug/L	54.653
65 Cu	0.053149	25.784	282.891	ug/L	144.312
68 Zn	0.506940	17.908	1931.213	ug/L	1351.771
75 As	0.887401	8.340	16166.769	ug/L	13025.167
82 Se	-0.594208	11.335	595.250	ug/L	652.232
72 Ge-1			1567754.555	ug/L	1423760.527
107 Ag	0.008602	10.833	101.334	ug/L	27.333
111 Cd	0.013116	62.700	70.451	ug/L	45.471
121 Sb	0.041111	3.239	299.672	ug/L	78.334
135 Ba	0.039468	23.588	173.335	ug/L	106.001
115 In-1			1475935.918	ug/L	1427336.731
205 Tl	0.506989	23.064	7734.201	ug/L	284.671
208 Pb	0.003181	30.113	996.355	ug/L	882.684
169 Tm-1			1051657.242	ug/L	990749.403
50 Cr	-0.585144	31.465	-645.354	ug/L	-480.210
53 Cr	11.046230	29.476	86077.619	ug/L	66744.972
61 Ni	-2.171240	167.279	2553.379	ug/L	2391.248
63 Cu	0.043422	18.118	204.007	ug/L	116.669
67 Zn	1.093538	63.290	1333.285	ug/L	1139.542
66 Zn	0.504779	13.706	432.697	ug/L	200.673
76 Se	77.317194	79.242	-203959.130	ug/L	-188842.544
77 Se	25.726313	12.557	10530.108	ug/L	5872.713
78 Se	2.120212	37.848	17341.062	ug/L	14769.755
79 Br	-1120.508189	18.328	100345.271	ug/L	66278.604

[>]	72 Ge			1567754.555	ug/L	1423760.527
[>]	108 Cd	0.188018	58.445	26.470	ug/L	3.173
[>]	114 Cd	0.014779	34.701	203.487	ug/L	136.004
[>]	109 Ag	0.005936	31.795	28.000	ug/L	10.333
[>]	115 In			1475935.918	ug/L	1427336.731
[>]	208 207.977	0.003973	21.580	517.349	ug/L	451.679
[>]	207 Pb	0.003340	38.179	211.669	ug/L	187.002
[>]	206 Pb	0.001606	78.894	267.337	ug/L	244.003
[>]	169 Tm			1051657.242	ug/L	990749.403
[>]	106 Pd	0.010730	60.000	10.000	ug/L	8.333
[>]	83 Kr	164.998269	223.976	613.015	ug/L	602.015
[>]	182 W			8.333	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45		
[>]	Li-1	6	107.100
[>]	Be	9	
[>]	Al	27	
[>]	Ca	43	
[>]	V	51	
[>]	Cr	52	
[>]	Mn	55	
[>]	Fe	54	
[>]	Fe	57	
[>]	Co	59	
[>]	Ni	60	
[>]	Cu	65	
[>]	Zn	68	
[>]	As	75	
[>]	Se	82	
[>]	Ge-1	72	110.114
[>]	Ag	107	
[>]	Cd	111	
[>]	Sb	121	
[>]	Ba	135	
[>]	In-1	115	103.405
[>]	Tl	205	
[>]	Pb	208	
[>]	Tm-1	169	106.148
[>]	Cr	50	
[>]	Cr	53	
[>]	Ni	61	
[>]	Cu	63	
[>]	Zn	67	
[>]	Zn	66	
[>]	Se	76	
[>]	Se	77	
[>]	Se	78	
[>]	Br	79	
[>]	Ge	72	110.114
[>]	Cd	108	
[>]	Cd	114	
[>]	Ag	109	
[>]	In	115	103.405
[>]	207.977	208	
[>]	Pb	207	
[>]	Pb	206	
[>]	Tm	169	106.148
[>]	Pd	106	
[>]	Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: CCV 1**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 12:54:08

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCV 1.015

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 4

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1873008.755	ug/L	1697737.040
6 Li-1			796846.417	ug/L	793017.605
9 Be	102.537308	1.536	27776.027	ug/L	1.333
27 Al	5291.697347	0.486	25016363.459	ug/L	10460.249
43 Ca	5532.332385	0.655	90501.633	ug/L	402.676
51 V	104.359226	0.053	1010669.913	ug/L	-12912.827
52 Cr	102.156637	0.684	915727.301	ug/L	16678.547
55 Mn	95.636226	3.968	1331216.030	ug/L	1050.396
54 Fe	5018.614670	0.837	3396669.521	ug/L	80292.579
57 Fe	4853.846508	0.562	1387475.820	ug/L	16315.461
59 Co	96.853703	0.179	1036988.506	ug/L	61.334
60 Ni	97.663138	0.298	220606.395	ug/L	54.653
65 Cu	98.738784	1.180	219004.009	ug/L	144.312
68 Zn	101.374267	0.330	85604.381	ug/L	1351.771
75 As	100.346935	0.192	209733.357	ug/L	13025.167
82 Se	93.687294	1.085	19111.437	ug/L	652.232
72 Ge-1			1490965.403	ug/L	1423760.527
107 Ag	50.696725	0.781	398357.016	ug/L	27.333
111 Cd	103.067196	0.891	169638.583	ug/L	45.471
121 Sb	52.163451	1.507	256931.333	ug/L	78.334
135 Ba	103.703748	0.353	155374.040	ug/L	106.001
115 In-1			1366330.081	ug/L	1427336.731
205 Tl	49.524851	0.576	712015.877	ug/L	284.671
208 Pb	100.246260	0.512	1838386.125	ug/L	882.684
169 Tm-1			1031922.813	ug/L	990749.403
50 Cr	104.859792	2.939	19335.806	ug/L	-480.210
53 Cr	91.003872	1.459	168397.745	ug/L	66744.972
61 Ni	88.142976	5.831	5613.373	ug/L	2391.248
63 Cu	98.242331	0.454	162618.217	ug/L	116.669
67 Zn	98.449084	0.592	7909.999	ug/L	1139.542
66 Zn	99.863920	0.308	40080.061	ug/L	200.673
76 Se	73.082914	11.905	-194188.510	ug/L	-188842.544
77 Se	106.447303	0.974	22136.918	ug/L	5872.713
78 Se	97.319332	1.196	62474.008	ug/L	14769.755
79 Br	-317.676982	22.738	76782.853	ug/L	66278.604

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[>]	72 Ge			1490965.403	ug/L	1423760.527
[>]	108 Cd	102.354734	0.198	11669.045	ug/L	3.173
[>]	114 Cd	102.325203	0.251	401877.151	ug/L	136.004
[>]	109 Ag	50.927572	0.518	137803.312	ug/L	10.333
[>]	115 In			1366330.081	ug/L	1427336.731
[>]	208 207.977	100.258530	0.638	939271.416	ug/L	451.679
[>]	207 Pb	100.356208	0.397	388217.945	ug/L	187.002
[>]	206 Pb	100.140362	0.427	510896.765	ug/L	244.003
[>]	169 Tm			1031922.813	ug/L	990749.403
[>]	106 Pd	96.291702	1.202	14965.121	ug/L	8.333
[>]	83 Kr	-579.993292	24.030	563.346	ug/L	602.015
[>]	182 W			68.667	ug/L	3.000

### Internal Standard Recoveries

Analyte	Mass	Int Std % Recovery	
Sc	45		
[>]	Li-1	6	100.483
[>]	Be	9	
[>]	Al	27	
[>]	Ca	43	
[>]	V	51	
[>]	Cr	52	
[>]	Mn	55	
[>]	Fe	54	
[>]	Fe	57	
[>]	Co	59	
[>]	Ni	60	
[>]	Cu	65	
[>]	Zn	68	
[>]	As	75	
[>]	Se	82	
[>]	Ge-1	72	104.720
[>]	Ag	107	
[>]	Cd	111	
[>]	Sb	121	
[>]	Ba	135	
[>]	In-1	115	95.726
[>]	Tl	205	
[>]	Pb	208	
[>]	Tm-1	169	104.156
[>]	Cr	50	
[>]	Cr	53	
[>]	Ni	61	
[>]	Cu	63	
[>]	Zn	67	
[>]	Zn	66	
[>]	Se	76	
[>]	Se	77	
[>]	Se	78	
[>]	Br	79	
[>]	Ge	72	104.720
[>]	Cd	108	
[>]	Cd	114	
[>]	Ag	109	
[>]	In	115	95.726
[>]	207.977	208	
[>]	Pb	207	
[>]	Pb	206	
[>]	Tm	169	104.156
[>]	Pd	106	
[>]	Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: CCB 1**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 12:59:34

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCB 1.016

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 5

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1693849.743	ug/L	1697737.040
6 Li-1			753568.287	ug/L	793017.605
9 Be	0.005463	82.442	2.667	ug/L	1.333
27 Al	0.428643	13.895	12128.069	ug/L	10460.249
43 Ca	-0.815374	172.913	381.675	ug/L	402.676
51 V	0.677637	33.482	-6423.846	ug/L	-12912.827
52 Cr	0.453889	21.217	20047.962	ug/L	16678.547
55 Mn	-0.003756	34.266	979.055	ug/L	1050.396
54 Fe	-13.844888	12.006	70025.086	ug/L	80292.579
57 Fe	-18.218571	6.425	11158.239	ug/L	16315.461
59 Co	0.002462	30.261	84.667	ug/L	61.334
60 Ni	-0.003493	79.657	46.092	ug/L	54.653
65 Cu	0.008660	62.558	159.178	ug/L	144.312
68 Zn	-0.052438	57.283	1282.094	ug/L	1351.771
75 As	0.219551	28.508	13145.798	ug/L	13025.167
82 Se	-0.649888	30.888	431.857	ug/L	563.419
72 Ge-1			1393161.257	ug/L	1423760.527
107 Ag	0.005048	11.900	64.000	ug/L	27.333
111 Cd	0.001877	257.549	45.298	ug/L	45.471
121 Sb	0.245382	15.880	1246.757	ug/L	78.334
135 Ba	0.003631	435.944	104.001	ug/L	106.001
115 In-1			1328324.310	ug/L	1427336.731
205 Tl	0.091292	5.146	1540.802	ug/L	284.671
208 Pb	-0.018893	2.342	549.007	ug/L	882.684
169 Tm-1			988582.967	ug/L	990749.403
50 Cr	0.005049	3269.614	-468.937	ug/L	-480.210
53 Cr	-5.964749	34.138	59274.229	ug/L	66744.972
61 Ni	-11.087583	6.516	1974.290	ug/L	2391.248
63 Cu	0.007226	93.087	125.336	ug/L	116.669
67 Zn	-0.131798	789.262	1106.530	ug/L	1139.542
66 Zn	-0.032297	152.158	184.339	ug/L	200.673
76 Se	-39.033185	31.116	-186565.991	ug/L	-188842.544
77 Se	9.412686	14.911	7066.998	ug/L	5872.713
78 Se	-1.074743	40.495	13966.690	ug/L	14769.755
79 Br	-252.751710	27.912	70333.026	ug/L	66278.604

[> 72 Ge			1393161.257	ug/L	1423760.527
108 Cd	0.047123	151.158	8.173	ug/L	3.173
114 Cd	0.003646	102.388	140.538	ug/L	136.004
109 Ag	0.005205	40.872	23.333	ug/L	10.333
[> 115 In			1328324.310	ug/L	1427336.731
208 207.977	-0.019290	10.318	277.671	ug/L	451.679
207 Pb	-0.018874	13.613	116.667	ug/L	187.002
206 Pb	-0.018177	5.636	154.668	ug/L	244.003
[> 169 Tm			988582.967	ug/L	990749.403
106 Pd	-0.004292	676.388	7.667	ug/L	8.333
83 Kr	-1739.973695	22.595	486.009	ug/L	602.015
182 W			2.667	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
[> Li-1	6	95.025
Be	9	
[> Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
[> Ge-1	72	97.851
Ag	107	
Cd	111	
Sb	121	
Ba	135	
[> In-1	115	93.063
Tl	205	
Pb	208	
[> Tm-1	169	99.781
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
[> Ge	72	97.851
Cd	108	
Cd	114	
Ag	109	
[> In	115	93.063
207.977	208	
Pb	207	
Pb	206	
[> Tm	169	99.781
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: CCV 2**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 13:03:51

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCV 2.017

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 4

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1758407.075	ug/L	1697737.040
6 Li-1			751426.628	ug/L	793017.605
9 Be	104.568674	1.443	26709.705	ug/L	1.333
27 Al	5256.204852	1.316	23485650.361	ug/L	10460.249
43 Ca	5404.892567	0.102	83573.558	ug/L	402.676
51 V	104.039687	1.091	952251.251	ug/L	-12912.827
52 Cr	100.542288	0.768	852069.488	ug/L	16678.547
55 Mn	99.300725	0.474	1306298.715	ug/L	1050.396
54 Fe	4938.095736	0.572	3160078.019	ug/L	80292.579
57 Fe	5060.205589	0.316	1366388.922	ug/L	16315.461
59 Co	95.541654	0.299	966789.157	ug/L	61.334
60 Ni	95.957930	0.518	204860.252	ug/L	54.653
65 Cu	98.864704	0.179	207249.638	ug/L	144.312
68 Zn	101.233570	0.332	80795.653	ug/L	1351.771
75 As	98.110116	0.309	194091.008	ug/L	13025.167
82 Se	90.749345	0.671	17430.795	ug/L	563.419
72 Ge-1			1409125.469	ug/L	1423760.527
107 Ag	49.963966	0.979	378095.157	ug/L	27.333
111 Cd	102.096976	0.401	161842.211	ug/L	45.471
121 Sb	52.201424	0.967	247653.248	ug/L	78.334
135 Ba	103.684438	0.703	149608.186	ug/L	106.001
115 In-1			1315921.742	ug/L	1427336.731
205 Tl	49.540456	0.617	691988.937	ug/L	284.671
208 Pb	101.539569	0.317	1809162.148	ug/L	882.684
169 Tm-1			1002575.673	ug/L	990749.403
50 Cr	105.849455	2.322	18451.889	ug/L	-480.210
53 Cr	85.008608	0.746	153022.492	ug/L	66744.972
61 Ni	86.908047	5.986	5264.768	ug/L	2391.248
63 Cu	97.385174	0.935	152354.120	ug/L	116.669
67 Zn	99.049204	1.315	7514.358	ug/L	1139.542
66 Zn	99.855142	0.045	37876.493	ug/L	200.673
76 Se	40.279207	32.842	-185041.128	ug/L	-188842.544
77 Se	101.045021	1.041	20155.571	ug/L	5872.713
78 Se	94.254564	0.393	57646.910	ug/L	14769.755
79 Br	22.943020	224.138	65091.391	ug/L	66278.604

[> 72 Ge			1409125.469	ug/L	1423760.527
108 Cd	101.434896	0.949	11136.932	ug/L	3.173
114 Cd	101.653650	0.380	384501.093	ug/L	136.004
109 Ag	50.046128	0.907	130419.806	ug/L	10.333
[> 115 In			1315921.742	ug/L	1427336.731
208 207.977	101.686463	0.425	925564.564	ug/L	451.679
207 Pb	101.472298	0.698	381376.019	ug/L	187.002
206 Pb	101.320835	0.246	502221.564	ug/L	244.003
[> 169 Tm			1002575.673	ug/L	990749.403
106 Pd	91.850653	0.608	14275.302	ug/L	8.333
83 Kr	-1249.982559	40.823	518.677	ug/L	602.015
182 W			65.001	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
[> Li-1	6	94.755
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
[> Ge-1	72	98.972
Ag	107	
Cd	111	
Sb	121	
Ba	135	
[> In-1	115	92.194
Tl	205	
Pb	208	
[> Tm-1	169	101.194
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
[> Ge	72	98.972
Cd	108	
Cd	114	
Ag	109	
[> In	115	92.194
207.977	208	
Pb	207	
Pb	206	
[> Tm	169	101.194
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: CCB 2**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 13:08:07

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCB 2.018

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 5

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1640445.397	ug/L	1697737.040
6 Li-1			722692.433	ug/L	793017.605
9 Be	0.008580	71.006	3.333	ug/L	1.333
27 Al	0.614213	12.216	12570.702	ug/L	10460.249
43 Ca	0.610768	263.801	391.342	ug/L	402.676
51 V	0.621812	27.703	-6747.209	ug/L	-12912.827
52 Cr	0.320737	33.979	18386.307	ug/L	16678.547
55 Mn	-0.003947	55.208	947.718	ug/L	1050.396
54 Fe	-15.038435	15.223	67235.677	ug/L	80292.579
57 Fe	-20.062343	9.588	10351.865	ug/L	16315.461
59 Co	0.004051	17.164	97.667	ug/L	61.334
60 Ni	-0.000741	468.683	50.377	ug/L	54.653
65 Cu	0.014438	28.032	166.189	ug/L	144.312
68 Zn	-0.061954	121.909	1236.421	ug/L	1351.771
75 As	0.492154	42.967	13237.641	ug/L	13025.167
82 Se	-0.764930	28.390	398.129	ug/L	563.419
72 Ge-1			1352187.405	ug/L	1423760.527
107 Ag	0.006310	20.778	73.334	ug/L	27.333
111 Cd	-0.003327	113.077	36.720	ug/L	45.471
121 Sb	0.359857	18.189	1788.187	ug/L	78.334
135 Ba	0.003197	72.331	102.667	ug/L	106.001
115 In-1			1320707.247	ug/L	1427336.731
205 Tl	0.098290	16.745	1613.483	ug/L	284.671
208 Pb	-0.016233	10.481	588.341	ug/L	882.684
169 Tm-1			975905.510	ug/L	990749.403
50 Cr	0.366760	30.805	-392.925	ug/L	-480.210
53 Cr	-10.382044	17.248	53174.770	ug/L	66744.972
61 Ni	-11.592886	15.059	1899.911	ug/L	2391.248
63 Cu	-0.005058	150.454	103.335	ug/L	116.669
67 Zn	0.032985	3808.546	1083.522	ug/L	1139.542
66 Zn	-0.043252	58.534	175.005	ug/L	200.673
76 Se	-75.214009	22.819	-182674.442	ug/L	-188842.544
77 Se	4.521857	24.304	6191.533	ug/L	5872.713
78 Se	-1.221726	50.119	13488.488	ug/L	14769.755
79 Br	-52.921133	179.940	64035.288	ug/L	66278.604

72 Ge			1352187.405	ug/L	1423760.527
108 Cd	0.100703	6.127	14.025	ug/L	3.173
114 Cd	0.002582	30.810	135.681	ug/L	136.004
109 Ag	0.008712	4.533	32.334	ug/L	10.333
115 In			1320707.247	ug/L	1427336.731
208 207.977	-0.016062	6.301	302.672	ug/L	451.679
207 Pb	-0.016390	9.800	124.334	ug/L	187.002
206 Pb	-0.016430	23.716	161.335	ug/L	244.003
169 Tm			975905.510	ug/L	990749.403
106 Pd	-0.006438	351.189	7.333	ug/L	8.333
83 Kr	-1734.973734	25.002	486.343	ug/L	602.015
182 W			2.000	ug/L	3.000

### Internal Standard Recoveries

Analyte	Mass	Int Std % Recovery
Sc	45	
> Li-1	6	91.132
> Be	9	
> Al	27	
> Ca	43	
> V	51	
> Cr	52	
> Mn	55	
> Fe	54	
> Fe	57	
> Co	59	
> Ni	60	
> Cu	65	
> Zn	68	
> As	75	
> Se	82	
> Ge-1	72	94.973
> Ag	107	
> Cd	111	
> Sb	121	
> Ba	135	
> In-1	115	92.529
> Tl	205	
> Pb	208	
> Tm-1	169	98.502
> Cr	50	
> Cr	53	
> Ni	61	
> Cu	63	
> Zn	67	
> Zn	66	
> Se	76	
> Se	77	
> Se	78	
> Br	79	
> Ge	72	94.973
> Cd	108	
> Cd	114	
> Ag	109	
> In	115	92.529
> 207.977	208	
> Pb	207	
> Pb	206	
> Tm	169	98.502
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: JMNKG**

Sample Description: G7A110000-50 LCS

Batch ID: 7011050

Sample Date/Time: Thursday, January 11, 2007 13:18:05

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\JMNKG.C.019

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 100

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1611443.955	ug/L	1697737.040
6 Li-1			732214.981	ug/L	793017.605
9 Be	179.375173	0.314	44647.956	ug/L	1.333
27 Al	930.596506	0.931	3893442.103	ug/L	10460.249
43 Ca	1143.696939	1.510	16819.486	ug/L	402.676
51 V	166.181284	2.516	1428367.532	ug/L	-12912.827
52 Cr	172.501697	4.589	1354889.627	ug/L	16678.547
55 Mn	169.202422	0.171	2079333.589	ug/L	1050.396
54 Fe	1031.488602	0.363	675594.803	ug/L	80292.579
57 Fe	930.912791	0.169	247214.199	ug/L	16315.461
59 Co	159.658552	0.769	1509694.311	ug/L	61.334
60 Ni	174.391805	0.336	347870.802	ug/L	54.653
65 Cu	181.269292	0.334	354990.002	ug/L	144.312
68 Zn	174.856118	0.619	129500.615	ug/L	1351.771
75 As	166.806305	0.599	299933.149	ug/L	13025.167
82 Se	158.052367	0.323	27982.976	ug/L	563.419
72 Ge-1			1316810.367	ug/L	1423760.527
107 Ag	43.972520	0.350	332360.378	ug/L	27.333
111 Cd	175.292122	0.324	277491.623	ug/L	45.471
121 Sb	44.257495	3.720	209688.107	ug/L	78.334
135 Ba	192.200325	0.900	276903.746	ug/L	106.001
115 In-1			1314257.814	ug/L	1427336.731
205 Tl	47.536068	0.396	655393.947	ug/L	284.671
208 Pb	179.434250	0.551	3154888.286	ug/L	882.684
169 Tm-1			989591.232	ug/L	990749.403
50 Cr	166.748025	2.130	27417.337	ug/L	-480.210
53 Cr	135.240044	1.504	191021.870	ug/L	66744.972
61 Ni	170.131943	1.781	7512.688	ug/L	2391.248
63 Cu	176.456227	1.323	257871.892	ug/L	116.669
67 Zn	164.219885	0.967	10948.814	ug/L	1139.542
66 Zn	171.990757	0.214	60830.352	ug/L	200.673
76 Se	95.844025	24.138	-170523.196	ug/L	-188842.544
77 Se	137.644483	2.256	23690.434	ug/L	5872.713
78 Se	159.934992	0.562	81888.812	ug/L	14769.755
79 Br	1438.005936	4.038	31820.161	ug/L	66278.604

72 Ge			1316810.367	ug/L	1423760.527
108 Cd	171.249549	0.554	18777.174	ug/L	3.173
114 Cd	173.633239	0.392	655851.627	ug/L	136.004
109 Ag	44.219012	0.554	115088.612	ug/L	10.333
115 In			1314257.814	ug/L	1427336.731
208 207.977	176.446907	0.635	1584877.937	ug/L	451.679
207 Pb	191.804591	0.546	711362.937	ug/L	187.002
206 Pb	175.540291	0.467	858647.412	ug/L	244.003
169 Tm			989591.232	ug/L	990749.403
106 Pd	158.442787	0.094	24618.918	ug/L	8.333
83 Kr	-1649.975677	10.245	492.010	ug/L	602.015
182 W			79.334	ug/L	3.000

### Internal Standard Recoveries

Analyte	Mass	Int Std % Recovery
Sc	45	
Li-1	6	92.333
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
Ge-1	72	92.488
Ag	107	
Cd	111	
Sb	121	
Ba	135	
In-1	115	92.078
Tl	205	
Pb	208	
Tm-1	169	99.883
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
Ge	72	92.488
Cd	108	
Cd	114	
Ag	109	
In	115	92.078
207.977	208	
Pb	207	
Pb	206	
Tm	169	99.883
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: JMNKGL**

Sample Description: G7A110000-50 LCSD

Batch ID: 7011050

Sample Date/Time: Thursday, January 11, 2007 13:22:12

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\JMNKGL.020

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 101

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens.	Mean	Sample Unit	Blank Intensity
45 Sc				1612265.560	ug/L	1697737.040
6 Li-1				723310.349	ug/L	793017.605
9 Be	177.175956	0.431		43563.846	ug/L	1.333
27 Al	853.418791	1.216	3785592.879	ug/L		10460.249
43 Ca	1065.158686	0.898		16631.459	ug/L	402.676
51 V	156.298463	0.694	1423369.305	ug/L		-12912.827
52 Cr	164.861141	0.630	1373454.892	ug/L		16678.547
55 Mn	156.705223	0.666	2041348.889	ug/L		1050.396
54 Fe	941.644336	0.559		660598.860	ug/L	80292.579
57 Fe	863.279208	0.451	244168.257	ug/L		16315.461
59 Co	148.500194	0.172	1488435.721	ug/L		61.334
60 Ni	161.925126	0.194	342384.151	ug/L		54.653
65 Cu	167.850216	0.608	348433.475	ug/L		144.312
68 Zn	163.759814	0.789	128642.444	ug/L		1351.771
75 As	154.039177	0.259	294571.770	ug/L		13025.167
82 Se	147.199589	1.070		27662.870	ug/L	563.419
72 Ge-1			1395797.587	ug/L		1423760.527
107 Ag	42.402772	2.271	325972.177	ug/L		27.333
111 Cd	170.065972	2.720	273794.531	ug/L		45.471
121 Sb	43.641048	2.134	210344.665	ug/L		78.334
135 Ba	183.603381	4.089	268940.081	ug/L		106.001
115 In-1			1337372.878	ug/L		1427336.731
205 Tl	46.722870	0.969	639285.348	ug/L		284.671
208 Pb	177.231164	0.271	3092557.350	ug/L		882.684
169 Tm-1			982081.781	ug/L		990749.403
50 Cr	157.936816	1.426	27502.177	ug/L		-480.210
53 Cr	120.361759	0.700	187397.142	ug/L		66744.972
61 Ni	152.170828	1.567	7370.014	ug/L		2391.248
63 Cu	164.001495	1.118	254061.315	ug/L		116.669
67 Zn	152.067090	2.114	10829.402	ug/L		1139.542
66 Zn	159.698978	0.726	59885.379	ug/L		200.673
76 Se	-181.150407	12.651	-193415.580	ug/L		-188842.544
77 Se	124.893275	0.433	23317.728	ug/L		5872.713
78 Se	148.173473	0.356	81483.510	ug/L		14769.755
79 Br	1871.717895	2.517	24299.287	ug/L		66278.604

[> 72 Ge			1395797.587	ug/L	1423760.527
108 Cd	165.564188	2.460	18463.820	ug/L	3.173
114 Cd	168.796613	3.116	648370.402	ug/L	136.004
109 Ag	43.121066	2.524	114144.644	ug/L	10.333
[> 115 In			1337372.878	ug/L	1427336.731
208 207.977	174.328349	0.192	1554016.076	ug/L	451.679
207 Pb	189.856549	0.396	698801.450	ug/L	187.002
206 Pb	172.988602	0.760	839739.824	ug/L	244.003
[> 169 Tm			982081.781	ug/L	990749.403
106 Pd	156.680297	0.520	24345.155	ug/L	8.333
83 Kr	-1979.968596	26.056	470.009	ug/L	602.015
182 W			64.667	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
[> Li-1	6	91.210
Be	9	
[> Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
[> Ge-1	72	98.036
Ag	107	
Cd	111	
Sb	121	
Ba	135	
[> In-1	115	93.697
Tl	205	
Pb	208	
[> Tm-1	169	99.125
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
[> Ge	72	98.036
Cd	108	
Cd	114	
Ag	109	
[> In	115	93.697
207.977	208	
Pb	207	
Pb	206	
[> Tm	169	99.125
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: Rinse**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 13:26:27

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\Rinse.021

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 6

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1634663.502	ug/L	1697737.040
6 Li-1			715500.900	ug/L	793017.605
9 Be	0.012863	48.603	4.333	ug/L	1.333
27 Al	27.259034	1.760	124660.026	ug/L	10460.249
43 Ca	3.855132	59.331	432.011	ug/L	402.676
51 V	0.576753	33.151	-7013.576	ug/L	-12912.827
52 Cr	0.262677	7.337	17636.423	ug/L	16678.547
55 Mn	0.058099	7.054	1701.832	ug/L	1050.396
54 Fe	-0.714033	148.136	74571.887	ug/L	80292.579
57 Fe	-13.707663	0.732	11786.341	ug/L	16315.461
59 Co	0.010127	5.583	154.001	ug/L	61.334
60 Ni	0.010484	39.243	72.174	ug/L	54.653
65 Cu	0.030462	7.266	195.004	ug/L	144.312
68 Zn	0.323781	19.594	1502.129	ug/L	1351.771
75 As	0.328921	23.281	12737.894	ug/L	13025.167
82 Se	-0.797183	9.821	386.281	ug/L	563.419
72 Ge-1			1329735.488	ug/L	1423760.527
107 Ag	0.013822	8.993	130.001	ug/L	27.333
111 Cd	0.006384	39.393	52.129	ug/L	45.471
121 Sb	0.743963	19.513	3606.761	ug/L	78.334
135 Ba	0.047633	27.546	166.668	ug/L	106.001
115 In-1			1318157.436	ug/L	1427336.731
205 Tl	0.017573	4.846	524.349	ug/L	284.671
208 Pb	0.010779	15.416	1066.692	ug/L	882.684
169 Tm-1			985531.876	ug/L	990749.403
50 Cr	0.492221	21.451	-365.460	ug/L	-480.210
53 Cr	-13.291490	7.367	49504.338	ug/L	66744.972
61 Ni	-12.057115	25.364	1853.550	ug/L	2391.248
63 Cu	0.020607	20.972	139.336	ug/L	116.669
67 Zn	-0.931807	51.082	1007.496	ug/L	1139.542
66 Zn	0.494794	12.734	363.688	ug/L	200.673
76 Se	-84.537892	2.529	-180052.819	ug/L	-188842.544
77 Se	3.028092	8.786	5890.388	ug/L	5872.713
78 Se	-1.230296	23.611	13263.928	ug/L	14769.755
79 Br	-60.777776	50.683	63157.153	ug/L	66278.604

72 Ge			1329735.488	ug/L	1423760.527
108 Cd	0.053184	84.972	8.778	ug/L	3.173
114 Cd	0.004688	49.432	143.343	ug/L	136.004
109 Ag	0.013455	14.518	44.667	ug/L	10.333
115 In			1318157.436	ug/L	1427336.731
208 207.977	0.012944	32.327	565.018	ug/L	451.679
207 Pb	0.012003	42.781	230.336	ug/L	187.002
206 Pb	0.005876	19.545	271.338	ug/L	244.003
169 Tm			985531.876	ug/L	990749.403
106 Pd	-0.002146	300.000	8.000	ug/L	8.333
83 Kr	-2234.963322	15.112	453.008	ug/L	602.015
182 W			0.667	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
> Li-1	6	90.225
_ Be	9	
_ Al	27	
_ Ca	43	
_ V	51	
_ Cr	52	
_ Mn	55	
_ Fe	54	
_ Fe	57	
_ Co	59	
_ Ni	60	
_ Cu	65	
_ Zn	68	
_ As	75	
_ Se	82	
> Ge-1	72	93.396
_ Ag	107	
_ Cd	111	
_ Sb	121	
_ Ba	135	
> In-1	115	92.351
_ Tl	205	
_ Pb	208	
> Tm-1	169	99.473
_ Cr	50	
_ Cr	53	
_ Ni	61	
_ Cu	63	
_ Zn	67	
_ Zn	66	
_ Se	76	
_ Se	77	
_ Se	78	
_ Br	79	
> Ge	72	93.396
_ Cd	108	
_ Cd	114	
_ Ag	109	
> In	115	92.351
_ 207.977	208	
_ Pb	207	
_ Pb	206	
> Tm	169	99.473
_ Pd	106	
Kr	83	

W 182

BJones

**Sample ID: JMNKGB**

Sample Description: G7A110000-50 BLK

Batch ID: 7011050

Sample Date/Time: Thursday, January 11, 2007 13:30:38

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\JMNKGB.022

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 17

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

### Sample Result Summary

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1684100.844	ug/L	1697737.040
6 Li-1			735257.776	ug/L	793017.605
9 Be	-0.000916	440.842	1.000	ug/L	1.333
27 Al	1.550155	5.000	16530.936	ug/L	10460.249
43 Ca	154.497042	2.007	2656.403	ug/L	402.676
51 V	1.462148	1.575	749.073	ug/L	-12912.827
52 Cr	-0.030334	41.003	15555.148	ug/L	16678.547
55 Mn	0.667075	2.451	9385.365	ug/L	1050.396
54 Fe	19.419320	9.626	87639.741	ug/L	80292.579
57 Fe	-12.773543	8.362	12191.526	ug/L	16315.461
59 Co	0.009501	20.534	150.001	ug/L	61.334
60 Ni	0.191251	3.159	442.397	ug/L	54.653
65 Cu	0.780360	0.363	1701.105	ug/L	144.312
68 Zn	3.568246	3.564	3960.897	ug/L	1351.771
75 As	0.568198	27.993	13339.940	ug/L	13025.167
82 Se	-0.522248	7.808	440.740	ug/L	563.419
72 Ge-1			1348494.514	ug/L	1423760.527
107 Ag	0.001551	71.321	38.000	ug/L	27.333
111 Cd	0.012910	46.035	64.184	ug/L	45.471
121 Sb	0.233189	7.558	1212.418	ug/L	78.334
135 Ba	0.723327	4.282	1174.079	ug/L	106.001
115 In-1			1354270.297	ug/L	1427336.731
205 Tl	0.006545	18.990	383.008	ug/L	284.671
208 Pb	0.115874	3.778	2984.531	ug/L	882.684
169 Tm-1			1011969.015	ug/L	990749.403
50 Cr	1.741318	6.359	-156.851	ug/L	-480.210
53 Cr	-45.588991	2.419	18590.449	ug/L	66744.972
61 Ni	-13.400416	6.690	1837.207	ug/L	2391.248
63 Cu	0.749972	2.644	1232.577	ug/L	116.669
67 Zn	-5.591843	10.963	734.420	ug/L	1139.542
66 Zn	3.635328	2.219	1502.695	ug/L	200.673
76 Se	-53.518181	44.944	-181227.159	ug/L	-188842.544
77 Se	-26.594187	2.420	1950.152	ug/L	5872.713
78 Se	-0.473536	97.183	13781.386	ug/L	14769.755
79 Br	1867.586133	1.692	23566.545	ug/L	66278.604

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G6L220174

Sample ID: JMNKGB

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[> ]	72 Ge			1348494.514	ug/L	1423760.527
[> ]	108 Cd	0.022690	149.337	5.568	ug/L	3.173
[> ]	114 Cd	0.003472	67.322	142.552	ug/L	136.004
[> ]	109 Ag	0.003678	35.661	19.667	ug/L	10.333
[> ]	115 In			1354270.297	ug/L	1427336.731
[> ]	208 207.977	0.119869	4.420	1562.140	ug/L	451.679
[> ]	207 Pb	0.124218	5.181	662.025	ug/L	187.002
[> ]	206 Pb	0.102211	4.915	760.366	ug/L	244.003
[> ]	169 Tm			1011969.015	ug/L	990749.403
[> ]	106 Pd	-0.004292	86.603	7.667	ug/L	8.333
[> ]	83 Kr	-2019.968189	6.738	467.342	ug/L	602.015
[> ]	182 W			4.333	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45		
[> ]	Li-1	6	92.716
[> ]	Be	9	
[> ]	Al	27	
[> ]	Ca	43	
[> ]	V	51	
[> ]	Cr	52	
[> ]	Mn	55	
[> ]	Fe	54	
[> ]	Fe	57	
[> ]	Co	59	
[> ]	Ni	60	
[> ]	Cu	65	
[> ]	Zn	68	
[> ]	As	75	
[> ]	Se	82	
[> ]	Ge-1	72	94.714
[> ]	Ag	107	
[> ]	Cd	111	
[> ]	Sb	121	
[> ]	Ba	135	
[> ]	In-1	115	94.881
[> ]	Tl	205	
[> ]	Pb	208	
[> ]	Tm-1	169	102.142
[> ]	Cr	50	
[> ]	Cr	53	
[> ]	Ni	61	
[> ]	Cu	63	
[> ]	Zn	67	
[> ]	Zn	66	
[> ]	Se	76	
[> ]	Se	77	
[> ]	Se	78	
[> ]	Br	79	
[> ]	Ge	72	94.714
[> ]	Cd	108	
[> ]	Cd	114	
[> ]	Ag	109	
[> ]	In	115	94.881
[> ]	207.977	208	
[> ]	Pb	207	
[> ]	Pb	206	
[> ]	Tm	169	102.142
[> ]	Pd	106	
[> ]	Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: JL2G1**

Sample Description: G6L220174-1

Batch ID: 7011050

Sample Date/Time: Thursday, January 11, 2007 13:34:48

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\JL2G1.023

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 27

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1680624.350	ug/L	1697737.040
6 Li-1			740725.954	ug/L	793017.605
9 Be	0.004313	105.937	2.333	ug/L	1.333
27 Al	97.431058	1.611	428493.029	ug/L	10460.249
43 Ca	459.844053	2.632	7190.622	ug/L	402.676
51 V	1.653147	2.839	2457.499	ug/L	-12912.827
52 Cr	1.780512	2.115	30111.055	ug/L	16678.547
55 Mn	3.521212	0.683	45521.776	ug/L	1050.396
54 Fe	134.304010	0.724	157037.568	ug/L	80292.579
57 Fe	100.556222	1.861	41343.539	ug/L	16315.461
59 Co	0.267391	1.046	2661.071	ug/L	61.334
60 Ni	0.762149	4.468	1616.536	ug/L	54.653
65 Cu	7.904632	0.801	16065.487	ug/L	144.312
68 Zn	12.795441	0.701	10947.511	ug/L	1351.771
75 As	0.735048	6.465	13707.037	ug/L	13025.167
82 Se	-0.315039	36.704	479.993	ug/L	563.419
72 Ge-1			1355499.512	ug/L	1423760.527
107 Ag	0.013155	7.968	128.668	ug/L	27.333
111 Cd	0.052223	27.102	128.506	ug/L	45.471
121 Sb	0.254212	2.688	1317.766	ug/L	78.334
135 Ba	6.114492	1.445	9194.162	ug/L	106.001
115 In-1			1357086.294	ug/L	1427336.731
205 Tl	0.007596	18.095	393.342	ug/L	284.671
208 Pb	1.158930	0.855	21492.561	ug/L	882.684
169 Tm-1			1000760.295	ug/L	990749.403
50 Cr	3.605091	7.235	162.953	ug/L	-480.210
53 Cr	-44.048173	3.109	20190.987	ug/L	66744.972
61 Ni	-11.493101	19.739	1907.582	ug/L	2391.248
63 Cu	7.856072	1.502	11923.705	ug/L	116.669
67 Zn	2.847362	29.499	1261.255	ug/L	1139.542
66 Zn	12.978324	2.129	4902.177	ug/L	200.673
76 Se	-59.139351	34.760	-182416.834	ug/L	-188842.544
77 Se	-27.443054	2.279	1843.469	ug/L	5872.713
78 Se	-1.585981	21.228	13366.055	ug/L	14769.755
79 Br	1885.048676	2.951	23311.075	ug/L	66278.604

[> 72 Ge			1355499.512	ug/L	1423760.527
108 Cd	0.708385	30.385	83.292	ug/L	3.173
114 Cd	0.041744	13.698	292.047	ug/L	136.004
109 Ag	0.013216	15.757	45.334	ug/L	10.333
[> 115 In			1357086.294	ug/L	1427336.731
208 207.977	1.186217	0.849	11228.200	ug/L	451.679
207 Pb	1.210718	1.683	4728.611	ug/L	187.002
206 Pb	1.069554	0.362	5535.751	ug/L	244.003
[> 169 Tm			1000760.295	ug/L	990749.403
106 Pd	1.203919	6.425	195.336	ug/L	8.333
83 Kr	-1749.973720	9.748	485.343	ug/L	602.015
182 W			94.335	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
[> Li-1	6	93.406
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
[> Ge-1	72	95.206
Ag	107	
Cd	111	
Sb	121	
Ba	135	
[> In-1	115	95.078
Tl	205	
Pb	208	
[> Tm-1	169	101.010
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
[> Ge	72	95.206
Cd	108	
Cd	114	
Ag	109	
[> In	115	95.078
207.977	208	
Pb	207	
Pb	206	
[> Tm	169	101.010
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: JL2G1P5**

Sample Description: G6L220174-1 5X

Batch ID: 7011050

Sample Date/Time: Thursday, January 11, 2007 13:38:55

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\JL2G1P5.024

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 28

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc.	Mean	Conc.	RSD	Meas. Intens.	Mean	Sample Unit	Blank Intensity
45 Sc					1708920.682	ug/L	1697737.040	
6 Li-1					741947.757	ug/L	793017.605	
9 Be	-0.002302	99.507			0.667	ug/L	1.333	
27 Al	19.978715	0.824			96990.592	ug/L	10460.249	
43 Ca	92.042656	4.267			1767.512	ug/L	402.676	
51 V	1.048767	3.889			-2975.288	ug/L	-12912.827	
52 Cr	0.381463	7.225			19165.300	ug/L	16678.547	
55 Mn	0.702218	1.038			10003.716	ug/L	1050.396	
54 Fe	10.578580	17.416			83826.498	ug/L	80292.579	
57 Fe	0.079137	1420.865			15747.599	ug/L	16315.461	
59 Co	0.049497	2.256			547.017	ug/L	61.334	
60 Ni	0.165861	1.706			397.505	ug/L	54.653	
65 Cu	1.622615	0.422			3450.013	ug/L	144.312	
68 Zn	2.562710	1.771			3262.608	ug/L	1351.771	
75 As	0.145380	64.088			12817.974	ug/L	13025.167	
82 Se	-0.748662	5.088			407.572	ug/L	563.419	
72 Ge-1					1372555.785	ug/L	1423760.527	
107 Ag	0.004749	7.044			62.334	ug/L	27.333	
111 Cd	0.002818	78.212			47.286	ug/L	45.471	
121 Sb	0.104177	2.434			577.352	ug/L	78.334	
135 Ba	1.204331	3.363			1870.533	ug/L	106.001	
115 In-1					1341776.583	ug/L	1427336.731	
205 Tl	0.000380	357.308			292.672	ug/L	284.671	
208 Pb	0.211178	2.406			4642.145	ug/L	882.684	
169 Tm-1					1000016.580	ug/L	990749.403	
50 Cr	1.286408	9.481			-239.010	ug/L	-480.210	
53 Cr	-23.614231	4.792			40807.961	ug/L	66744.972	
61 Ni	-13.444848	13.799			1868.559	ug/L	2391.248	
63 Cu	1.604061	0.673			2555.044	ug/L	116.669	
67 Zn	-1.159712	50.909			1025.502	ug/L	1139.542	
66 Zn	2.899581	2.770			1259.254	ug/L	200.673	
76 Se	-93.094885	42.959			-186246.029	ug/L	-188842.544	
77 Se	-5.360831	8.685			4919.968	ug/L	5872.713	
78 Se	-1.688106	3.895			13487.750	ug/L	14769.755	
79 Br	472.367890	17.182			53790.868	ug/L	66278.604	

Report Date/Time: Thursday, January 11, 2007 13:40:54

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Sample ID: JL2G1P5

G6L220174

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> 72 Ge			1372555.785	ug/L	1423760.527
108 Cd	0.164018	32.193	21.361	ug/L	3.173
114 Cd	0.004113	11.037	143.710	ug/L	136.004
109 Ag	0.004120	37.725	20.667	ug/L	10.333
> 115 In			1341776.583	ug/L	1427336.731
208 207.977	0.217620	1.503	2430.671	ug/L	451.679
207 Pb	0.221133	2.810	1017.393	ug/L	187.002
206 Pb	0.191801	5.168	1194.082	ug/L	244.003
> 169 Tm			1000016.580	ug/L	990749.403
106 Pd	0.197432	9.783	39.000	ug/L	8.333
83 Kr	-1699.974600	17.432	488.676	ug/L	602.015
182 W			21.000	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
> Li-1	6	93.560
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
> Ge-1	72	96.404
Ag	107	
Cd	111	
Sb	121	
Ba	135	
> In-1	115	94.006
Tl	205	
Pb	208	
> Tm-1	169	100.935
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
> Ge	72	96.404
Cd	108	
Cd	114	
Ag	109	
> In	115	94.006
207.977	208	
Pb	207	
Pb	206	
> Tm	169	100.935
Pd	106	
Kr	83	

W 182

**Sample ID: JL2G1Z**

Sample Description: G6L220174-1 PS

Batch ID: 7011050

Sample Date/Time: Thursday, January 11, 2007 13:43:03

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\JL2G1Z.025

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 29

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

### Sample Result Summary

Mass Analyte	Conc.	Mean	Conc.	RSD	Meas. Intens.	Mean	Sample Unit	Blank Intensity
45 Sc					1676455.009	ug/L	1697737.040	
6 Li-1					755006.725	ug/L	793017.605	
9 Be	188.264111	1.364			48312.344	ug/L	1.333	
27 Al	1066.324271	1.235			4523555.985	ug/L	10460.249	
43 Ca	1560.873171	0.593			23144.235	ug/L	402.676	
51 V	179.570057	0.612			1566564.967	ug/L	-12912.827	
52 Cr	181.837996	0.186			1447946.635	ug/L	16678.547	
55 Mn	189.135136	0.249			2357340.743	ug/L	1050.396	
54 Fe	1236.772766	0.533			806609.700	ug/L	80292.579	
57 Fe	1155.308490	0.488			307492.821	ug/L	16315.461	
59 Co	177.154723	0.691			1699049.745	ug/L	61.334	
60 Ni	192.472968	0.491			389414.808	ug/L	54.653	
65 Cu	203.878325	0.403			404941.919	ug/L	144.312	
68 Zn	203.188601	0.307			152427.545	ug/L	1351.771	
75 As	183.890336	0.442			334122.074	ug/L	13025.167	
82 Se	173.534355	0.659			31110.726	ug/L	563.419	
72 Ge-1					1335598.132	ug/L	1423760.527	
107 Ag	47.508933	0.395			365929.000	ug/L	27.333	
111 Cd	189.685552	0.296			305996.120	ug/L	45.471	
121 Sb	47.931503	4.396			231418.843	ug/L	78.334	
135 Ba	208.643232	0.961			306312.538	ug/L	106.001	
115 In-1					1339303.667	ug/L	1427336.731	
205 Tl	51.501712	0.356			710686.405	ug/L	284.671	
208 Pb	195.798194	0.090			3445633.181	ug/L	882.684	
169 Tm-1					990464.751	ug/L	990749.403	
50 Cr	181.279894	1.702			30271.082	ug/L	-480.210	
53 Cr	152.139654	1.030			210128.936	ug/L	66744.972	
61 Ni	183.939269	1.990			8056.038	ug/L	2391.248	
63 Cu	201.173779	0.230			298185.233	ug/L	116.669	
67 Zn	189.285964	1.137			12637.168	ug/L	1139.542	
66 Zn	200.874852	0.222			72028.651	ug/L	200.673	
76 Se	111.469572	15.694			-172274.091	ug/L	-188842.544	
77 Se	152.667367	0.509			26048.780	ug/L	5872.713	
78 Se	177.979237	0.912			90865.421	ug/L	14769.755	
79 Br	1844.794213	2.791			23813.026	ug/L	66278.604	

[>]	72 Ge			1335598.132	ug/L	1423760.527
[>]	108 Cd	186.949872	1.210	20889.669	ug/L	3.173
[>]	114 Cd	188.987378	0.371	727445.437	ug/L	136.004
[>]	109 Ag	47.831267	1.273	126864.534	ug/L	10.333
[>]	115 In			1339303.667	ug/L	1427336.731
[>]	208 207.977	193.077812	0.355	1735780.301	ug/L	451.679
[>]	207 Pb	209.167742	0.263	776447.119	ug/L	187.002
[>]	206 Pb	190.656375	0.287	933405.761	ug/L	244.003
[>]	169 Tm			990464.751	ug/L	990749.403
[>]	106 Pd	175.745699	0.734	27306.544	ug/L	8.333
[>]	83 Kr	-1589.976660	21.943	496.010	ug/L	602.015
[>]	182 W			134.670	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
[>]	Li-1	6
		95.207
[>]	Be	9
[>]	Al	27
[>]	Ca	43
[>]	V	51
[>]	Cr	52
[>]	Mn	55
[>]	Fe	54
[>]	Fe	57
[>]	Co	59
[>]	Ni	60
[>]	Cu	65
[>]	Zn	68
[>]	As	75
[>]	Se	82
[>]	Ge-1	72
		93.808
[>]	Ag	107
[>]	Cd	111
[>]	Sb	121
[>]	Ba	135
[>]	In-1	115
		93.832
[>]	Tl	205
[>]	Pb	208
[>]	Tm-1	169
		99.971
[>]	Cr	50
[>]	Cr	53
[>]	Ni	61
[>]	Cu	63
[>]	Zn	67
[>]	Zn	66
[>]	Se	76
[>]	Se	77
[>]	Se	78
[>]	Br	79
[>]	Ge	72
		93.808
[>]	Cd	108
[>]	Cd	114
[>]	Ag	109
[>]	In	115
		93.832
[>]	207.977	208
[>]	Pb	207
[>]	Pb	206
[>]	Tm	169
[>]	Pd	106
[>]	Kr	83

W 182

**Sample ID: JL2HC**

Sample Description: G6L220174-2

Batch ID: 7011050

Sample Date/Time: Thursday, January 11, 2007 13:47:11

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\JL2HC.026

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 30

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

### Sample Result Summary

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1673113.405	ug/L	1697737.040
6 Li-1			735975.494	ug/L	793017.605
9 Be	0.004379	105.321	2.333	ug/L	1.333
27 Al	92.817665	0.552	404962.920	ug/L	10460.249
43 Ca	462.075330	0.782	7156.926	ug/L	402.676
51 V	1.560412	6.735	1617.424	ug/L	-12912.827
52 Cr	1.726829	2.557	29409.007	ug/L	16678.547
55 Mn	3.368309	0.985	43188.329	ug/L	1050.396
54 Fe	125.063828	2.620	150092.384	ug/L	80292.579
57 Fe	98.258844	2.129	40379.812	ug/L	16315.461
59 Co	0.324570	0.370	3187.914	ug/L	61.334
60 Ni	0.717173	3.642	1510.686	ug/L	54.653
65 Cu	7.717681	0.662	15545.068	ug/L	144.312
68 Zn	12.879691	1.661	10909.798	ug/L	1351.771
75 As	0.749345	6.135	13605.881	ug/L	13025.167
82 Se	0.007134	2744.483	532.580	ug/L	563.419
72 Ge-1			1343041.392	ug/L	1423760.527
107 Ag	0.014466	6.373	138.001	ug/L	27.333
111 Cd	0.037864	21.752	104.472	ug/L	45.471
121 Sb	0.880367	12.044	4353.760	ug/L	78.334
135 Ba	5.962760	1.874	8911.870	ug/L	106.001
115 In-1			1348550.478	ug/L	1427336.731
205 Tl	0.005715	38.806	366.674	ug/L	284.671
208 Pb	1.115451	1.168	20686.555	ug/L	882.684
169 Tm-1			999154.838	ug/L	990749.403
50 Cr	3.723795	4.967	181.681	ug/L	-480.210
53 Cr	-44.334585	3.401	19727.950	ug/L	66744.972
61 Ni	-9.313832	26.129	1959.949	ug/L	2391.248
63 Cu	7.625422	0.443	11471.350	ug/L	116.669
67 Zn	2.754317	41.293	1243.915	ug/L	1139.542
66 Zn	13.306012	0.450	4974.623	ug/L	200.673
76 Se	-42.752846	99.180	-180025.091	ug/L	-188842.544
77 Se	-27.149060	2.791	1866.473	ug/L	5872.713
78 Se	-0.862827	26.043	13556.990	ug/L	14769.755
79 Br	1887.090272	3.341	23055.279	ug/L	66278.604

>	72 Ge			1343041.392	ug/L	1423760.527	
	108 Cd	0.767631	9.235	89.365	ug/L	3.173	
	114 Cd	0.039435	14.435	281.269	ug/L	136.004	
	109 Ag	0.012197	10.896	42.334	ug/L	10.333	
>	115 In			1348550.478	ug/L	1427336.731	
	208	207.977	1.154599	0.811	10923.815	ug/L	451.679
	Pb			4491.820	ug/L	187.002	
	207 Pb	1.149526	2.184	5270.921	ug/L	244.003	
	206 Pb	1.017726	2.334	999154.838	ug/L	990749.403	
>	169 Tm			167.335	ug/L	8.333	
	106 Pd	1.023651	5.349	450.341	ug/L	602.015	
	83 Kr	-2274.962154	22.595	88.335	ug/L	3.000	
	182 W						

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
> Li-1	6	92.807
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
> Ge-1	72	94.331
Ag	107	
Cd	111	
Sb	121	
Ba	135	
> In-1	115	94.480
Tl	205	
Pb	208	
> Tm-1	169	100.848
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
> Ge	72	94.331
Cd	108	
Cd	114	
Ag	109	
> In	115	94.480
207.977	208	
Pb	207	
Pb	206	
> Tm	169	100.848
Pd	106	
Kr	83	

W 182

BJones

**Sample ID: JL2HF**

Sample Description: G6L220174-3

Batch ID: 7011050

Sample Date/Time: Thursday, January 11, 2007 13:51:20

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\JL2HF.027

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 31

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1701084.775	ug/L	1697737.040
6 Li-1			741201.931	ug/L	793017.605
9 Be	-0.002300	99.654	0.667	ug/L	1.333
27 Al	112.109308	0.354	493730.195	ug/L	10460.249
43 Ca	461.788613	0.863	7250.670	ug/L	402.676
51 V	1.698128	2.209	2869.831	ug/L	-12912.827
52 Cr	1.764668	0.432	30116.406	ug/L	16678.547
55 Mn	3.409140	0.861	44298.190	ug/L	1050.396
54 Fe	138.773992	0.547	160415.798	ug/L	80292.579
57 Fe	107.023990	2.022	43191.457	ug/L	16315.461
59 Co	0.258987	1.998	2590.383	ug/L	61.334
60 Ni	0.628790	1.605	1348.856	ug/L	54.653
65 Cu	9.160800	0.718	18678.566	ug/L	144.312
68 Zn	9.286607	0.760	8334.634	ug/L	1351.771
75 As	0.727996	9.094	13753.537	ug/L	13025.167
82 Se	-0.250584	12.130	493.731	ug/L	563.419
72 Ge-1			1361398.080	ug/L	1423760.527
107 Ag	0.012047	13.821	121.668	ug/L	27.333
111 Cd	0.039182	5.826	108.740	ug/L	45.471
121 Sb	0.344365	2.676	1782.848	ug/L	78.334
135 Ba	7.574732	0.882	11522.248	ug/L	106.001
115 In-1			1375816.991	ug/L	1427336.731
205 Tl	0.003749	64.529	340.007	ug/L	284.671
208 Pb	1.904901	1.065	34774.366	ug/L	882.684
169 Tm-1			1001340.677	ug/L	990749.403
50 Cr	3.714639	5.806	182.527	ug/L	-480.210
53 Cr	-44.726617	2.813	19617.361	ug/L	66744.972
61 Ni	-11.678050	20.390	1910.251	ug/L	2391.248
63 Cu	9.286563	1.496	14136.908	ug/L	116.669
67 Zn	-0.998098	101.980	1027.503	ug/L	1139.542
66 Zn	9.462645	0.998	3641.454	ug/L	200.673
76 Se	-56.773614	64.123	-183103.000	ug/L	-188842.544
77 Se	-27.488513	1.558	1845.803	ug/L	5872.713
78 Se	-1.496009	22.611	13462.945	ug/L	14769.755
79 Br	1873.591758	2.458	23662.736	ug/L	66278.604

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>	72 Ge			1361398.080	ug/L	1423760.527
	108 Cd	0.573359	25.292	68.906	ug/L	3.173
	114 Cd	0.036428	4.550	275.116	ug/L	136.004
	109 Ag	0.009815	38.233	36.667	ug/L	10.333
=>	115 In			1375816.991	ug/L	1427336.731
	208 207.977	1.975565	2.230	18408.017	ug/L	451.679
	207 Pb	1.988833	1.584	7651.011	ug/L	187.002
	206 Pb	1.711498	1.007	8715.338	ug/L	244.003
->	169 Tm			1001340.677	ug/L	990749.403
	106 Pd	0.873429	4.104	144.001	ug/L	8.333
	83 Kr	-1644.975790	8.473	492.343	ug/L	602.015
	182 W			69.667	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
> Li-1	6	93.466
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
> Ge-1	72	95.620
Ag	107	
Cd	111	
Sb	121	
Ba	135	
> In-1	115	96.390
Tl	205	
Pb	208	
> Tm-1	169	101.069
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
> Ge	72	95.620
Cd	108	
Cd	114	
Ag	109	
> In	115	96.390
207.977	208	
Pb	207	
Pb	206	
> Tm	169	101.069
Pd	106	
Kr	83	

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SOP No. SAC-MT-0001

BJones

**Sample ID: JL2HH**

Sample Description: G6L220174-4

Batch ID: 7011050

Sample Date/Time: Thursday, January 11, 2007 13:55:29

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\JL2HH.028

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 32

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1707412.362	ug/L	1697737.040
6 Li-1			744512.234	ug/L	793017.605
9 Be	0.001640	278.300	1.667	ug/L	1.333
27 Al	159.390401	0.923	696383.153	ug/L	10460.249
43 Ca	519.146426	1.766	8087.737	ug/L	402.676
51 V	1.907681	1.871	4739.385	ug/L	-12912.827
52 Cr	1.873195	0.266	30927.227	ug/L	16678.547
55 Mn	4.342331	0.618	56039.556	ug/L	1050.396
54 Fe	194.788557	0.320	193796.730	ug/L	80292.579
57 Fe	160.285457	1.035	56810.565	ug/L	16315.461
59 Co	0.263467	0.431	2629.062	ug/L	61.334
60 Ni	0.712097	1.794	1517.700	ug/L	54.653
65 Cu	15.111543	0.795	30661.795	ug/L	144.312
68 Zn	8.835919	0.168	7977.301	ug/L	1351.771
75 As	0.920941	14.832	14069.863	ug/L	13025.167
82 Se	-0.320061	40.014	480.270	ug/L	563.419
72 Ge-1			1358739.773	ug/L	1423760.527
107 Ag	0.014919	20.616	143.001	ug/L	27.333
111 Cd	0.038220	46.141	106.157	ug/L	45.471
121 Sb	0.239569	0.699	1251.089	ug/L	78.334
135 Ba	8.615693	1.572	12963.931	ug/L	106.001
115 In-1			1362448.420	ug/L	1427336.731
205 Tl	0.004474	34.871	350.007	ug/L	284.671
208 Pb	1.719861	0.346	31470.882	ug/L	882.684
169 Tm-1			1000957.401	ug/L	990749.403
50 Cr	4.240750	4.947	272.799	ug/L	-480.210
53 Cr	-44.789062	3.128	19516.815	ug/L	66744.972
61 Ni	-11.494849	30.634	1912.587	ug/L	2391.248
63 Cu	15.258106	1.341	23110.144	ug/L	116.669
67 Zn	-0.846957	104.366	1034.838	ug/L	1139.542
66 Zn	9.118145	0.860	3508.969	ug/L	200.673
76 Se	-36.922846	122.128	-181857.779	ug/L	-188842.544
77 Se	-27.881215	1.758	1788.461	ug/L	5872.713
78 Se	-1.075285	39.841	13621.500	ug/L	14769.755
79 Br	1918.009198	2.322	22676.575	ug/L	66278.604

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G6L220174

Sample ID: JL2HH

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72 Ge			1358739.773	ug/L	1423760.527
108 Cd	0.615605	23.001	73.005	ug/L	3.173
114 Cd	0.030761	18.469	250.257	ug/L	136.004
109 Ag	0.012779	19.145	44.334	ug/L	10.333
115 In			1362448.420	ug/L	1427336.731
208 Tm	1.755953	0.357	16405.699	ug/L	451.679
207 Pb	1.813813	0.856	6991.793	ug/L	187.002
206 Pb	1.582347	0.591	8073.390	ug/L	244.003
169 Tm			1000957.401	ug/L	990749.403
106 Pd	0.899181	11.959	148.001	ug/L	8.333
83 Kr	-1504.978464	4.028	501.677	ug/L	602.015
182 W			102.668	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
Li-1	6	93.883
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
Ge-1	72	95.433
Ag	107	
Cd	111	
Sb	121	
Ba	135	
In-1	115	95.454
Tl	205	
Pb	208	
Tm-1	169	101.030
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
Ge	72	95.433
Cd	108	
Cd	114	
Ag	109	
In	115	95.454
207.977	208	
Pb	207	
Pb	206	
Tm	169	101.030
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: CCV 3**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 13:59:44

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCV 3.029

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 4

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1779983.412	ug/L	1697737.040
6 Li-1			748858.242	ug/L	793017.605
9 Be	101.946144	0.714	25952.431	ug/L	1.333
27 Al	5248.551989	0.481	23161089.517	ug/L	10460.249
43 Ca	5631.124979	1.288	85982.142	ug/L	402.676
51 V	105.107049	0.133	950239.155	ug/L	-12912.827
52 Cr	102.433097	0.386	857052.617	ug/L	16678.547
55 Mn	102.368875	0.336	1329966.396	ug/L	1050.396
54 Fe	5142.836722	0.162	3247136.131	ug/L	80292.579
57 Fe	5091.634339	2.026	1357789.572	ug/L	16315.461
59 Co	98.889883	0.481	988279.176	ug/L	61.334
60 Ni	98.905484	0.226	208540.751	ug/L	54.653
65 Cu	98.910086	0.342	204781.602	ug/L	144.312
68 Zn	101.588039	0.562	80071.042	ug/L	1351.771
75 As	97.989764	0.460	191473.967	ug/L	13025.167
82 Se	93.068988	1.204	17641.279	ug/L	563.419
72 Ge-1			1391702.781	ug/L	1423760.527
107 Ag	49.004268	0.530	380355.078	ug/L	27.333
111 Cd	100.459413	0.397	163327.981	ug/L	45.471
121 Sb	51.410809	1.297	250137.693	ug/L	78.334
135 Ba	103.036549	0.406	152490.327	ug/L	106.001
115 In-1			1349635.250	ug/L	1427336.731
205 Tl	50.323133	1.451	700901.353	ug/L	284.671
208 Pb	101.902975	0.798	1810446.623	ug/L	882.684
169 Tm-1			999732.090	ug/L	990749.403
50 Cr	110.292342	3.143	19007.346	ug/L	-480.210
53 Cr	82.326714	1.283	148423.359	ug/L	66744.972
61 Ni	89.165051	4.740	5274.116	ug/L	2391.248
63 Cu	99.189038	0.345	153255.126	ug/L	116.669
67 Zn	95.928177	2.098	7222.672	ug/L	1139.542
66 Zn	102.507929	0.840	38397.823	ug/L	200.673
76 Se	31.540227	18.600	-183152.206	ug/L	-188842.544
77 Se	97.037802	1.677	19344.960	ug/L	5872.713
78 Se	95.254966	2.091	57386.593	ug/L	14769.755
79 Br	194.039840	35.030	60576.797	ug/L	66278.604

72 Ge			1391702.781	ug/L	1423760.527
108 Cd	98.962533	0.685	11144.615	ug/L	3.173
114 Cd	99.599191	0.608	386391.737	ug/L	136.004
109 Ag	49.413668	0.170	132071.459	ug/L	10.333
115 In			1349635.250	ug/L	1427336.731
208 207.977	101.568751	1.186	921845.885	ug/L	451.679
207 Pb	102.387629	0.545	383717.554	ug/L	187.002
206 Pb	102.149233	0.671	504883.184	ug/L	244.003
169 Tm			999732.090	ug/L	990749.403
106 Pd	93.172612	0.695	14480.639	ug/L	8.333
83 Kr	-1339.981323	20.345	512.677	ug/L	602.015
182 W			54.334	ug/L	3.000

### Internal Standard Recoveries

Analyte	Mass	Int Std % Recovery
Sc	45	
> Li-1	6	94.431
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
> Ge-1	72	97.748
Ag	107	
Cd	111	
Sb	121	
Ba	135	
> In-1	115	94.556
Ti	205	
Pb	208	
> Tm-1	169	100.907
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
> Ge	72	97.748
Cd	108	
Cd	114	
Ag	109	
> In	115	94.556
207.977	208	
Pb	207	
Pb	206	
> Tm	169	100.907
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: CCB 3**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 14:04:01

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCB 3.030

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 5

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1669876.035	ug/L	1697737.040
6 Li-1			729979.208	ug/L	793017.605
9 Be	0.003127	258.200	2.000	ug/L	1.333
27 Al	0.573216	11.237	12326.679	ug/L	10460.249
43 Ca	-1.619855	110.798	356.674	ug/L	402.676
51 V	0.790730	12.789	-5198.236	ug/L	-12912.827
52 Cr	0.084839	26.278	16431.081	ug/L	16678.547
55 Mn	-0.005212	45.728	927.049	ug/L	1050.396
54 Fe	-17.065318	2.444	65698.081	ug/L	80292.579
57 Fe	-23.758344	4.324	9363.311	ug/L	16315.461
59 Co	0.003871	5.777	95.334	ug/L	61.334
60 Ni	0.001263	519.209	54.217	ug/L	54.653
65 Cu	-0.008102	61.062	120.136	ug/L	144.312
68 Zn	-0.412147	16.083	968.387	ug/L	1351.771
75 As	0.057638	228.353	12407.926	ug/L	13025.167
82 Se	-0.698441	10.485	408.346	ug/L	563.419
72 Ge-1			1345175.222	ug/L	1423760.527
107 Ag	0.008299	22.031	89.000	ug/L	27.333
111 Cd	0.000905	315.546	43.831	ug/L	45.471
121 Sb	0.374766	19.166	1870.871	ug/L	78.334
135 Ba	0.004736	137.498	105.667	ug/L	106.001
115 In-1			1330242.006	ug/L	1427336.731
205 Tl	0.061650	19.749	1135.075	ug/L	284.671
208 Pb	-0.020347	5.485	524.339	ug/L	882.684
169 Tm-1			990326.744	ug/L	990749.403
50 Cr	0.731923	24.921	-328.794	ug/L	-480.210
53 Cr	-18.728295	4.600	44771.947	ug/L	66744.972
61 Ni	-14.257251	18.105	1805.522	ug/L	2391.248
63 Cu	-0.013559	34.078	90.001	ug/L	116.669
67 Zn	-2.743550	26.760	907.799	ug/L	1139.542
66 Zn	-0.068255	45.918	165.004	ug/L	200.673
76 Se	-78.382587	35.027	-181872.485	ug/L	-188842.544
77 Se	-1.476512	9.199	5348.477	ug/L	5872.713
78 Se	-1.884768	22.857	13133.119	ug/L	14769.755
79 Br	86.066192	15.196	60817.930	ug/L	66278.604

72 Ge			1345175.222	ug/L	1423760.527
108 Cd	0.015813	339.903	4.692	ug/L	3.173
114 Cd	0.000917	109.088	130.267	ug/L	136.004
109 Ag	0.009631	36.180	35.000	ug/L	10.333
115 In			1330242.006	ug/L	1427336.731
208 207.977	-0.020862	7.009	264.004	ug/L	451.679
207 Pb	-0.020542	24.593	110.667	ug/L	187.002
206 Pb	-0.019254	20.891	149.668	ug/L	244.003
169 Tm			990326.744	ug/L	990749.403
106 Pd	-0.008584	0.000	7.000	ug/L	8.333
83 Kr	-1574.976986	19.886	497.010	ug/L	602.015
182 W			3.333	ug/L	3.000

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
Li-1	6	92.051
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
Ge-1	72	94.480
Ag	107	
Cd	111	
Sb	121	
Ba	135	
In-1	115	93.197
Tl	205	
Pb	208	
Tm-1	169	99.957
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
Ge	72	94.480
Cd	108	
Cd	114	
Ag	109	
In	115	93.197
207.977	208	
Pb	207	
Pb	206	
Tm	169	99.957
Pd	106	
Kr	83	

W 182

182

SOP No. SAC-MT-0001

BJones

**Sample ID: BLK RECAL**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 14:04:01

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCB 3.030

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 5

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1669876.035	ug/L	
6 Li-1			729979.208	ug/L	
9 Be			2.000	ug/L	
27 Al			12326.679	ug/L	
43 Ca			356.674	ug/L	
51 V			-5198.236	ug/L	
52 Cr			16431.081	ug/L	
55 Mn			927.049	ug/L	
54 Fe			65698.081	ug/L	
57 Fe			9363.311	ug/L	
59 Co			95.334	ug/L	
60 Ni			54.217	ug/L	
65 Cu			120.136	ug/L	
68 Zn			968.387	ug/L	
75 As			12407.926	ug/L	
82 Se			408.346	ug/L	
72 Ge-1			1345175.222	ug/L	
107 Ag			89.000	ug/L	
111 Cd			43.831	ug/L	
121 Sb			1870.871	ug/L	
135 Ba			105.667	ug/L	
115 In-1			1330242.006	ug/L	
205 Tl			1135.075	ug/L	
208 Pb			524.339	ug/L	
169 Tm-1			990326.744	ug/L	
50 Cr			-328.794	ug/L	
53 Cr			44771.947	ug/L	
61 Ni			1805.522	ug/L	
63 Cu			90.001	ug/L	
67 Zn			907.799	ug/L	
66 Zn			165.004	ug/L	
76 Se			-181872.485	ug/L	
77 Se			5348.477	ug/L	
78 Se			13133.119	ug/L	
79 Br			60817.930	ug/L	

72 Ge	1345175.222	ug/L
108 Cd	4.692	ug/L
114 Cd	130.267	ug/L
109 Ag	35.000	ug/L
115 In	1330242.006	ug/L
208 207.977	264.004	ug/L
207 Pb	110.667	ug/L
206 Pb	149.668	ug/L
169 Tm	990326.744	ug/L
106 Pd	7.000	ug/L
83 Kr	497.010	ug/L
182 W	3.333	ug/L

### Internal Standard Recoveries

Analyte	Mass	Int Std % Recovery
Sc	45	
[> Li-1	6	
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
[> Ge-1	72	
Ag	107	
Cd	111	
Sb	121	
Ba	135	
[> In-1	115	
Tl	205	
Pb	208	
[> Tm-1	169	
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
[> Ge	72	
Cd	108	
Cd	114	
Ag	109	
[> In	115	
207.977	208	
Pb	207	
Pb	206	
[> Tm	169	
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: STD1 RECAL**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 13:59:44

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCV 3.029

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 4

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens.	Mean	Sample Unit	Blank Intensity
45 Sc			1779983.412	ug/L	1669876.035	
6 Li-1			748858.242	ug/L	729979.208	
9 Be	100.000000	0.714	25952.431	ug/L	2.000	
27 Al	5100.000000	0.481	23161089.517	ug/L	12326.679	
43 Ca	5100.000000	1.287	85982.142	ug/L	356.674	
51 V	100.000000	0.134	950239.155	ug/L	-5198.236	
52 Cr	100.000000	0.386	857052.617	ug/L	16431.081	
55 Mn	100.000000	0.336	1329966.396	ug/L	927.049	
54 Fe	5100.000000	0.161	3247136.131	ug/L	65698.081	
57 Fe	5100.000000	2.017	1357789.572	ug/L	9363.311	
59 Co	100.000000	0.481	988279.176	ug/L	95.334	
60 Ni	100.000000	0.226	208540.751	ug/L	54.217	
65 Cu	100.000000	0.342	204781.602	ug/L	120.136	
68 Zn	100.000000	0.559	80071.042	ug/L	968.387	
75 As	100.000000	0.461	191473.967	ug/L	12407.926	
82 Se	100.000000	1.196	17641.279	ug/L	408.346	
72 Ge-1			1391702.781	ug/L	1345175.222	
107 Ag	50.000000	0.530	380355.078	ug/L	89.000	
111 Cd	100.000000	0.397	163327.981	ug/L	43.831	
121 Sb	50.000000	1.306	250137.693	ug/L	1870.871	
135 Ba	100.000000	0.406	152490.327	ug/L	105.667	
115 In-1			1349635.250	ug/L	1330242.006	
205 Tl	50.000000	1.453	700901.353	ug/L	1135.075	
208 Pb	100.000000	0.798	1810446.623	ug/L	524.339	
169 Tm-1			999732.090	ug/L	990326.744	
50 Cr	100.000000	3.164	19007.346	ug/L	-328.794	
53 Cr	100.000000	1.045	148423.359	ug/L	44771.947	
61 Ni	100.000000	4.087	5274.116	ug/L	1805.522	
63 Cu	100.000000	0.344	153255.126	ug/L	90.001	
67 Zn	100.000000	2.040	7222.672	ug/L	907.799	
66 Zn	100.000000	0.840	38397.823	ug/L	165.004	
76 Se	100.000000	5.337	-183152.206	ug/L	-181872.485	
77 Se	100.000000	1.652	19344.960	ug/L	5348.477	
78 Se	100.000000	2.050	57386.593	ug/L	13133.119	
79 Br	100.000000	62.948	60576.797	ug/L	60817.930	

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Sample ID: STD1 RECAL

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[>]	72 Ge			1391702.781	ug/L	1345175.222
[>]	108 Cd	100.000000	0.685	11144.615	ug/L	4.692
[>]	114 Cd	100.000000	0.608	386391.737	ug/L	130.267
[>]	109 Ag	50.000000	0.170	132071.459	ug/L	35.000
[>]	115 In			1349635.250	ug/L	1330242.006
[>]	208 207.977	100.000000	1.186	921845.885	ug/L	264.004
[>]	207 Pb	100.000000	0.545	383717.554	ug/L	110.667
[>]	206 Pb	100.000000	0.671	504883.184	ug/L	149.668
[>]	169 Tm			999732.090	ug/L	990326.744
[>]	106 Pd	100.000000	0.695	14480.639	ug/L	7.000
[>]	83 Kr	100.000000	116.011	512.677	ug/L	497.010
[>]	182 W			54.334	ug/L	3.333

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45
[>]	Li-1 6
[>]	Be 9
[>]	Al 27
[>]	Ca 43
[>]	V 51
[>]	Cr 52
[>]	Mn 55
[>]	Fe 54
[>]	Fe 57
[>]	Co 59
[>]	Ni 60
[>]	Cu 65
[>]	Zn 68
[>]	As 75
[>]	Se 82
[>]	Ge-1 72
[>]	Ag 107
[>]	Cd 111
[>]	Sb 121
[>]	Ba 135
[>]	In-1 115
[>]	Tl 205
[>]	Pb 208
[>]	Tm-1 169
[>]	Cr 50
[>]	Cr 53
[>]	Ni 61
[>]	Cu 63
[>]	Zn 67
[>]	Zn 66
[>]	Se 76
[>]	Se 77
[>]	Se 78
[>]	Br 79
[>]	Ge 72
[>]	Cd 108
[>]	Cd 114
[>]	Ag 109
[>]	In 115
[>]	207.977 208
[>]	Pb 207
[>]	Pb 206
[>]	Tm 169
[>]	Pd 106
[>]	Kr 83

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: CCV 4**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 14:08:17

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCV 4.031

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 4

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1780314.506	ug/L	1669876.035
6 Li-1			744257.245	ug/L	729979.208
9 Be	100.885010	0.156	26021.636	ug/L	2.000
27 Al	5085.213920	0.662	23103489.452	ug/L	12326.679
43 Ca	5117.244598	1.717	86307.014	ug/L	356.674
51 V	100.270757	0.303	953220.904	ug/L	-5198.236
52 Cr	100.644671	0.589	862811.149	ug/L	16431.081
55 Mn	100.513268	0.132	1337344.797	ug/L	927.049
54 Fe	5101.872715	0.409	3249621.394	ug/L	65698.081
57 Fe	5114.635313	2.134	1362125.360	ug/L	9363.311
59 Co	99.654906	0.702	985279.659	ug/L	95.334
60 Ni	99.580358	0.549	207748.563	ug/L	54.217
65 Cu	100.304221	0.353	205488.802	ug/L	120.136
68 Zn	99.494287	0.199	79704.377	ug/L	968.387
75 As	100.252582	0.379	192002.458	ug/L	12407.926
82 Se	99.659061	1.056	17589.433	ug/L	408.346
72 Ge-1			1392277.550	ug/L	1345175.222
107 Ag	50.095852	0.425	379397.274	ug/L	89.000
111 Cd	100.373272	0.380	163216.429	ug/L	43.831
121 Sb	50.355283	0.640	250794.081	ug/L	1870.871
135 Ba	100.187955	0.543	152096.881	ug/L	105.667
115 In-1			1343667.870	ug/L	1330242.006
205 Tl	49.785971	0.988	698714.503	ug/L	1135.075
208 Pb	99.873740	0.781	1810236.814	ug/L	524.339
169 Tm-1			1000878.077	ug/L	990326.744
50 Cr	98.614545	4.057	18745.078	ug/L	-328.794
53 Cr	101.000551	0.568	149502.733	ug/L	44771.947
61 Ni	97.230430	2.323	5181.292	ug/L	1805.522
63 Cu	99.725747	0.602	152895.363	ug/L	90.001
67 Zn	101.204439	0.049	7301.520	ug/L	907.799
66 Zn	98.780108	0.855	37946.005	ug/L	165.004
76 Se	113.660236	21.833	-182544.817	ug/L	-181872.485
77 Se	100.761783	3.409	19457.806	ug/L	5348.477
78 Se	100.180813	0.881	57488.532	ug/L	13133.119
79 Br	131.747290	20.916	59862.001	ug/L	60817.930

72 Ge			1392277.550	ug/L	1345175.222
108 Cd	100.314692	1.464	11129.936	ug/L	4.692
114 Cd	101.400067	0.347	390064.262	ug/L	130.267
109 Ag	50.254784	0.593	132155.288	ug/L	35.000
115 In			1343667.870	ug/L	1330242.006
208 207.977	99.986716	0.583	922792.527	ug/L	264.004
207 Pb	99.687212	1.006	382949.782	ug/L	110.667
206 Pb	99.809219	1.077	504494.504	ug/L	149.668
169 Tm			1000878.077	ug/L	990326.744
106 Pd	99.314869	0.669	14381.476	ug/L	7.000
83 Kr	65.957402	131.390	507.344	ug/L	497.010
182 W			60.334	ug/L	3.333

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
Li-1	6	101.956
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
Ge-1	72	103.502
Ag	107	
Cd	111	
Sb	121	
Ba	135	
In-1	115	101.009
Tl	205	
Pb	208	
Tm-1	169	101.065
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
Ge	72	103.502
Cd	108	
Cd	114	
Ag	109	
In	115	101.009
207.977	208	
Pb	207	
Pb	206	
Tm	169	101.065
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

Sample ID: CCB 4

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 14:12:34

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCB 4.032

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 5

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

### Sample Result Summary

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1669465.233	ug/L	1669876.035
6 Li-1			723710.181	ug/L	729979.208
9 Be	0.002723	83.705	2.667	ug/L	2.000
27 Al	0.079190	116.601	12625.441	ug/L	12326.679
43 Ca	-2.184843	34.096	320.006	ug/L	356.674
51 V	0.178937	60.736	-3530.828	ug/L	-5198.236
52 Cr	0.007919	113.294	16432.416	ug/L	16431.081
55 Mn	0.000849	55.373	934.383	ug/L	927.049
54 Fe	-0.447644	241.120	65178.834	ug/L	65698.081
57 Fe	-1.448184	32.333	8958.928	ug/L	9363.311
59 Co	0.000774	22.343	102.334	ug/L	95.334
60 Ni	-0.002962	69.963	48.067	ug/L	54.217
65 Cu	-0.002498	73.683	114.755	ug/L	120.136
68 Zn	-0.015338	587.620	953.052	ug/L	968.387
75 As	0.130739	233.280	12585.369	ug/L	12407.926
82 Se	-0.152224	81.201	381.526	ug/L	408.346
72 Ge-1			1340045.408	ug/L	1345175.222
107 Ag	0.000009	35033.341	89.667	ug/L	89.000
111 Cd	-0.001551	260.676	41.877	ug/L	43.831
121 Sb	-0.010986	550.397	1843.532	ug/L	1870.871
135 Ba	0.006656	147.626	116.667	ug/L	105.667
115 In-1			1345305.004	ug/L	1330242.006
205 Tl	0.012520	131.703	1294.431	ug/L	1135.075
208 Pb	0.002185	125.132	557.007	ug/L	524.339
169 Tm-1			979148.632	ug/L	990326.744
50 Cr	0.127695	46.002	-303.765	ug/L	-328.794
53 Cr	-1.006686	25.050	43611.752	ug/L	44771.947
61 Ni	-2.994685	24.395	1700.463	ug/L	1805.522
63 Cu	-0.003846	226.272	84.001	ug/L	90.001
67 Zn	0.619123	27.507	941.809	ug/L	907.799
66 Zn	0.127592	7.603	211.340	ug/L	165.004
76 Se	22.549360	23.570	-180090.919	ug/L	-181872.485
77 Se	-0.285005	392.402	5290.120	ug/L	5348.477
78 Se	0.470869	111.121	13281.358	ug/L	13133.119
79 Br	12.572850	120.373	60303.114	ug/L	60817.930

Report Date/Time: Thursday, January 11, 2007 15:05:43

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Sample ID: CCB 4

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> 72 Ge			1340045.408	ug/L	1345175.222
108 Cd	0.011297	392.426	5.902	ug/L	4.692
114 Cd	0.002015	244.743	139.061	ug/L	130.267
109 Ag	-0.001123	248.434	32.334	ug/L	35.000
> 115 In			1345305.004	ug/L	1330242.006
208 207.977	0.003366	68.024	291.338	ug/L	264.004
207 Pb	0.005219	38.879	129.001	ug/L	110.667
206 Pb	-0.002275	180.199	136.668	ug/L	149.668
> 169 Tm			979148.632	ug/L	990326.744
106 Pd	-0.004606	458.258	6.333	ug/L	7.000
83 Kr	-87.234023	46.470	483.343	ug/L	497.010
182 W			4.000	ug/L	3.333

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Analyte	Mass	Int Std	% Recovery
Sc	45		

> Li-1	6	99.141
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1 Be	9	
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2 Al	27	
------	----	--

3 Ca	43	
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4 V	51	
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5 Cr	52	
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6 Mn	55	
------	----	--

7 Fe	54	
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8 Fe	57	
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9 Co	59	
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10 Ni	60	
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11 Cu	65	
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12 Zn	68	
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13 As	75	
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14 Se	82	
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> Ge-1	72	99.619
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15 Ag	107	
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16 Cd	111	
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17 Sb	121	
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18 Ba	135	
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> In-1	115	101.132
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19 Tl	205	
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20 Pb	208	
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> Tm-1	169	98.871
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21 Cr	50	
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22 Cr	53	
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23 Ni	61	
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24 Cu	63	
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25 Zn	67	
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26 Zn	66	
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27 Se	76	
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28 Se	77	
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29 Se	78	
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30 Br	79	
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> Ge	72	99.619
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31 Cd	108	
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32 Cd	114	
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33 Ag	109	
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> In	115	101.132
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34 207.977	208	
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35 Pb	207	
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36 Pb	206	
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> Tm	169	98.871
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37 Pd	106	
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38 Kr	83	
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W 182

BJones

**Sample ID: CONT BLANK**

Sample Description: CONTROL BLANK

Batch ID: 7011050

Sample Date/Time: Thursday, January 11, 2007 14:16:51

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CONT BLANK.033

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 20

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1740190.736	ug/L	1669876.035
6 Li-1			769816.817	ug/L	729979.208
9 Be	-0.006669	32.123	0.333	ug/L	2.000
27 Al	17.533274	1.751	91295.484	ug/L	12326.679
43 Ca	275.160788	2.854	4931.389	ug/L	356.674
51 V	0.603580	20.630	377.731	ug/L	-5198.236
52 Cr	1.138629	3.336	26267.036	ug/L	16431.081
55 Mn	0.534950	0.989	7978.302	ug/L	927.049
54 Fe	36.093253	8.035	89448.708	ug/L	65698.081
57 Fe	20.807256	5.095	15015.917	ug/L	9363.311
59 Co	0.213804	1.995	2186.607	ug/L	95.334
60 Ni	0.507376	5.078	1101.082	ug/L	54.217
65 Cu	1.065514	4.324	2278.797	ug/L	120.136
68 Zn	3.728814	4.888	3905.205	ug/L	968.387
75 As	-0.208007	109.020	12324.985	ug/L	12407.926
82 Se	0.088462	84.186	432.732	ug/L	408.346
72 Ge-1			1376205.569	ug/L	1345175.222
107 Ag	-0.003222	20.573	69.334	ug/L	89.000
111 Cd	0.021852	48.513	84.282	ug/L	43.831
121 Sb	-0.228067	3.865	806.371	ug/L	1870.871
135 Ba	1.443240	3.273	2428.337	ug/L	105.667
115 In-1			1421389.198	ug/L	1330242.006
205 Tl	-0.044768	5.366	542.684	ug/L	1135.075
208 Pb	0.136519	3.705	3134.550	ug/L	524.339
169 Tm-1			1044828.039	ug/L	990326.744
50 Cr	1.965742	3.948	39.646	ug/L	-328.794
53 Cr	-26.311772	3.624	19246.195	ug/L	44771.947
61 Ni	7.398131	55.001	2097.373	ug/L	1805.522
63 Cu	1.127778	3.553	1799.852	ug/L	90.001
67 Zn	-3.351153	15.248	720.750	ug/L	907.799
66 Zn	3.709143	1.605	1570.728	ug/L	165.004
76 Se	31.718580	145.218	-184513.094	ug/L	-181872.485
77 Se	-26.791867	1.377	1813.132	ug/L	5348.477
78 Se	-1.790417	38.726	12658.685	ug/L	13133.119
79 Br	1827.200028	1.025	19947.582	ug/L	60817.930

72 Ge			1376205.569	ug/L	1345175.222
108 Cd	0.553613	8.664	69.980	ug/L	4.692
114 Cd	0.006763	78.290	166.499	ug/L	130.267
109 Ag	-0.007710	29.900	16.000	ug/L	35.000
115 In			1421389.198	ug/L	1330242.006
208 207.977	0.139633	6.578	1622.484	ug/L	264.004
207 Pb	0.145812	5.895	701.028	ug/L	110.667
206 Pb	0.123769	3.492	811.038	ug/L	149.668
169 Tm			1044828.039	ug/L	990326.744
106 Pd	1.123894	11.605	169.668	ug/L	7.000
83 Kr	-291.488720	38.576	451.341	ug/L	497.010
182 W			44.334	ug/L	3.333

### Internal Standard Recoveries

Analyte	Mass	Int Std % Recovery
Sc	45	
Li-1	6	105.457
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
Ge-1	72	102.307
Ag	107	
Cd	111	
Sb	121	
Ba	135	
In-1	115	106.852
Tl	205	
Pb	208	
Tm-1	169	105.503
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
Ge	72	102.307
Cd	108	
Cd	114	
Ag	109	
In	115	106.852
207.977	208	
Pb	207	
Pb	206	
Tm	169	105.503
Pd	106	
Kr	83	

W 182

**Sample ID: LLS 5X**

Sample Description: Low level 5X

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 14:20:32

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\LLS 5X.034

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 11

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1727492.641	ug/L	1669876.035
6 Li-1			770899.247	ug/L	729979.208
9 Be	1.872569	0.670	502.348	ug/L	2.000
27 Al	117.045970	0.994	543160.602	ug/L	12326.679
43 Ca	102.448627	2.138	2085.582	ug/L	356.674
51 V	21.313008	0.939	197983.456	ug/L	-5198.236
52 Cr	1.902884	1.288	32933.866	ug/L	16431.081
55 Mn	2.132990	0.985	29262.186	ug/L	927.049
54 Fe	126.258649	1.385	146451.670	ug/L	65698.081
57 Fe	117.279206	0.401	40625.141	ug/L	9363.311
59 Co	2.068958	0.478	20512.349	ug/L	95.334
60 Ni	2.044351	1.402	4311.639	ug/L	54.217
65 Cu	2.153745	1.028	4525.026	ug/L	120.136
68 Zn	10.354540	1.423	9174.808	ug/L	968.387
75 As	1.414034	10.858	15339.100	ug/L	12407.926
82 Se	1.707027	1.298	715.298	ug/L	408.346
72 Ge-1			1389561.766	ug/L	1345175.222
107 Ag	0.971372	0.319	7901.232	ug/L	89.000
111 Cd	1.932077	1.779	3380.333	ug/L	43.831
121 Sb	0.487057	6.951	4560.856	ug/L	1870.871
135 Ba	1.960988	1.502	3270.611	ug/L	105.667
115 In-1			1426044.007	ug/L	1330242.006
205 Tl	0.982211	1.323	15465.323	ug/L	1135.075
208 Pb	2.132197	0.391	40625.712	ug/L	524.339
169 Tm-1			1038182.383	ug/L	990326.744
50 Cr	1.916114	2.360	30.492	ug/L	-328.794
53 Cr	-3.823653	25.983	42352.968	ug/L	44771.947
61 Ni	6.918976	2.478	2100.372	ug/L	1805.522
63 Cu	2.166163	1.569	3405.521	ug/L	90.001
67 Zn	9.301719	3.370	1521.370	ug/L	907.799
66 Zn	10.718201	0.908	4261.237	ug/L	165.004
76 Se	4.305149	531.002	-187660.297	ug/L	-181872.485
77 Se	-3.756061	14.544	5007.003	ug/L	5348.477
78 Se	-0.333457	49.666	13420.570	ug/L	13133.119
79 Br	430.906897	2.011	52758.104	ug/L	60817.930

72 Ge			1389561.766	ug/L	1345175.222
108 Cd	1.773237	7.540	213.720	ug/L	4.692
114 Cd	1.940002	1.019	8057.131	ug/L	130.267
109 Ag	0.992091	1.060	2805.592	ug/L	35.000
115 In			1426044.007	ug/L	1330242.006
208 Tm	2.164918	0.674	20996.161	ug/L	264.004
207 Pb	2.091241	1.084	8446.742	ug/L	110.667
206 Pb	2.103581	1.125	11182.809	ug/L	149.668
169 Tm			1038182.383	ug/L	990326.744
106 Pd	2.001374	4.317	296.672	ug/L	7.000
83 Kr	-310.637582	34.157	448.341	ug/L	497.010
182 W			4.667	ug/L	3.333

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
Li-1	6	105.606
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
Ge-1	72	103.300
Ag	107	
Cd	111	
Sb	121	
Ba	135	
In-1	115	107.202
Tl	205	
Pb	208	
Tm-1	169	104.832
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
Ge	72	103.300
Cd	108	
Cd	114	
Ag	109	
In	115	107.202
207.977	208	
Pb	207	
Pb	206	
Tm	169	104.832
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: LLS 10X**

Sample Description: Low Level 10X

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 14:24:12

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\LLS 10X.035

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 12

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1726002.715	ug/L	1669876.035
6 Li-1			767802.539	ug/L	729979.208
9 Be	0.968156	5.110	259.671	ug/L	2.000
27 Al	58.784451	1.032	278125.880	ug/L	12326.679
43 Ca	48.204866	8.689	1172.079	ug/L	356.674
51 V	10.766574	1.018	97007.538	ug/L	-5198.236
52 Cr	0.882582	1.777	24288.666	ug/L	16431.081
55 Mn	1.055553	0.989	14910.360	ug/L	927.049
54 Fe	61.405712	2.685	105700.607	ug/L	65698.081
57 Fe	58.865236	0.878	25117.851	ug/L	9363.311
59 Co	1.032900	1.013	10252.670	ug/L	95.334
60 Ni	1.024697	1.441	2181.080	ug/L	54.217
65 Cu	1.036496	4.069	2233.783	ug/L	120.136
68 Zn	4.903201	0.995	4853.679	ug/L	968.387
75 As	0.364020	56.282	13419.323	ug/L	12407.926
82 Se	0.496514	44.559	505.327	ug/L	408.346
72 Ge-1			1384568.459	ug/L	1345175.222
107 Ag	0.490918	0.743	4029.928	ug/L	89.000
111 Cd	0.925405	2.039	1639.079	ug/L	43.831
121 Sb	0.121414	4.842	2635.397	ug/L	1870.871
135 Ba	0.984117	3.230	1693.497	ug/L	105.667
115 In-1			1422281.558	ug/L	1330242.006
205 Tl	0.451033	0.575	7727.411	ug/L	1135.075
208 Pb	1.062181	1.097	20467.180	ug/L	524.339
169 Tm-1			1035816.915	ug/L	990326.744
50 Cr	1.189069	12.417	-109.615	ug/L	-328.794
53 Cr	-1.809076	23.237	44245.594	ug/L	44771.947
61 Ni	5.423765	28.048	2042.000	ug/L	1805.522
63 Cu	1.039926	2.570	1677.117	ug/L	90.001
67 Zn	4.874403	20.028	1238.913	ug/L	907.799
66 Zn	5.036406	3.743	2085.029	ug/L	165.004
76 Se	-20.085819	55.014	-188198.433	ug/L	-181872.485
77 Se	-1.969649	44.062	5234.096	ug/L	5348.477
78 Se	-1.566303	21.027	12835.502	ug/L	13133.119
79 Br	207.888570	10.248	57760.489	ug/L	60817.930

> 72 Ge			1384568.459	ug/L	1345175.222
108 Cd	0.971261	9.432	118.989	ug/L	4.692
114 Cd	0.953999	2.596	4021.924	ug/L	130.267
109 Ag	0.481755	4.636	1377.637	ug/L	35.000
> 115 In			1422281.558	ug/L	1330242.006
208 207.977	1.069470	1.599	10487.949	ug/L	264.004
207 Pb	1.055020	2.005	4309.061	ug/L	110.667
206 Pb	1.054313	0.150	5670.170	ug/L	149.668
> 169 Tm			1035816.915	ug/L	990326.744
106 Pd	1.040983	1.916	157.668	ug/L	7.000
83 Kr	-355.318259	16.300	441.341	ug/L	497.010
182 W			2.333	ug/L	3.333

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
> Li-1	6	105.181
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
> Ge-1	72	102.928
Ag	107	
Cd	111	
Sb	121	
Ba	135	
> In-1	115	106.919
Tl	205	
Pb	208	
> Tm-1	169	104.593
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
> Ge	72	102.928
Cd	108	
Cd	114	
Ag	109	
> In	115	106.919
207.977	208	
Pb	207	
Pb	206	
> Tm	169	104.593
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: ICSA**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 14:27:51

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\ICSA.036

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 2

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc.	Mean	Conc.	RSD	Meas. Intens.	Mean	Sample Unit	Blank Intensity
45 Sc					1744832.193	ug/L	1669876.035	
6 Li-1					636969.274	ug/L	729979.208	
9 Be	0.064591	18.737			16.000	ug/L	2.000	
27 Al	110036.955857	0.606			458134704.372	ug/L	12326.679	
43 Ca	95523.857816	0.391			1471160.077	ug/L	356.674	
51 V	0.262923	56.531			-2630.060	ug/L	-5198.236	
52 Cr	2.610371	7.250			35713.172	ug/L	16431.081	
55 Mn	5.297584	0.900			65463.340	ug/L	927.049	
54 Fe	102641.045513	0.775			58753524.928	ug/L	65698.081	
57 Fe	100778.556429	0.652			24444564.227	ug/L	9363.311	
59 Co	2.568835	2.976			23378.550	ug/L	95.334	
60 Ni	1.391996	1.164			2713.323	ug/L	54.217	
65 Cu	-0.537779	30.402			-894.252	ug/L	120.136	
68 Zn	4.880439	3.064			4459.137	ug/L	968.387	
75 As	1.329366	15.807			13953.660	ug/L	12407.926	
82 Se	-32.234734	1.842			-4704.134	ug/L	408.346	
72 Ge-1					1276573.099	ug/L	1345175.222	
107 Ag	0.145876	2.164			1102.736	ug/L	89.000	
111 Cd	0.463333	10.622			736.114	ug/L	43.831	
121 Sb	0.021157	63.103			1840.860	ug/L	1870.871	
135 Ba	0.818830	0.919			1245.422	ug/L	105.667	
115 In-1					1240610.767	ug/L	1330242.006	
205 Tl	-0.045912	4.237			400.343	ug/L	1135.075	
208 Pb	0.828223	1.047			12344.383	ug/L	524.339	
169 Tm-1					795190.937	ug/L	990326.744	
50 Cr	388.945831	2.509			68707.578	ug/L	-328.794	
53 Cr	16.261189	2.276			57716.395	ug/L	44771.947	
61 Ni	35.648200	12.076			2827.614	ug/L	1805.522	
63 Cu	6.175870	1.812			8762.606	ug/L	90.001	
67 Zn	34.727193	3.328			2863.312	ug/L	907.799	
66 Zn	9.778010	1.806			3585.390	ug/L	165.004	
76 Se	-183.288368	6.314			-181018.786	ug/L	-181872.485	
77 Se	51.259538	4.184			11570.355	ug/L	5348.477	
78 Se	5.878779	10.261			14826.138	ug/L	13133.119	
79 Br	-135411.877586	0.733			2964032.662	ug/L	60817.930	

Report Date/Time: Thursday, January 11, 2007 15:07:58

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G6L220174

Sample ID: ICSA

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[>]	72 Ge			1276573.099	ug/L	1345175.222
[>]	108 Cd	50.128327	5.187	5139.679	ug/L	4.692
	114 Cd	2.857623	5.353	10272.944	ug/L	130.267
	109 Ag	0.123980	4.090	333.685	ug/L	35.000
[>]	115 In			1240610.767	ug/L	1330242.006
[>]	208 207.977	0.852808	1.775	6463.387	ug/L	264.004
	207 Pb	0.845398	1.692	2668.407	ug/L	110.667
	206 Pb	0.770280	1.468	3212.590	ug/L	149.668
[>]	169 Tm			795190.937	ug/L	990326.744
	106 Pd	0.568853	0.701	89.334	ug/L	7.000
	83 Kr	2563.869765	1.177	898.699	ug/L	497.010
	182 W			600.391	ug/L	3.333

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45		
[>]	Li-1	6	87.259
[>]	Be	9	
[>]	Al	27	
	Ca	43	
	V	51	
	Cr	52	
	Mn	55	
	Fe	54	
	Fe	57	
	Co	59	
	Ni	60	
	Cu	65	
	Zn	68	
	As	75	
	Se	82	
[>]	Ge-1	72	94.900
[>]	Ag	107	
	Cd	111	
	Sb	121	
	Ba	135	
[>]	In-1	115	93.262
[>]	Tl	205	
	Pb	208	
[>]	Tm-1	169	80.296
	Cr	50	
	Cr	53	
	Ni	61	
	Cu	63	
	Zn	67	
	Zn	66	
	Se	76	
	Se	77	
	Se	78	
	Br	79	
[>]	Ge	72	94.900
[>]	Cd	108	
	Cd	114	
	Ag	109	
[>]	In	115	93.262
[>]	207.977	208	
	Pb	207	
	Pb	206	
[>]	Tm	169	80.296
	Pd	106	
	Kr	83	

W 182

BJones

**Sample ID: ICSAB**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 14:32:05

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\ICSAB.037

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 1

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

### Sample Result Summary

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1750896.130	ug/L	1669876.035
6 Li-1			636374.838	ug/L	729979.208
9 Be	96.920820	1.232	21374.075	ug/L	2.000
27 Al	108593.545775	0.438	456390836.542	ug/L	12326.679
43 Ca	94178.858231	0.717	1464167.516	ug/L	356.674
51 V	108.842873	0.303	958098.648	ug/L	-5198.236
52 Cr	108.178578	0.486	857161.571	ug/L	16431.081
55 Mn	110.757227	0.525	1363807.335	ug/L	927.049
54 Fe	101941.184203	0.268	58901916.348	ug/L	65698.081
57 Fe	101107.995619	0.687	24754579.102	ug/L	9363.311
59 Co	108.277443	1.031	990792.015	ug/L	95.334
60 Ni	103.086428	1.005	199043.326	ug/L	54.217
65 Cu	94.631963	1.037	179433.108	ug/L	120.136
68 Zn	95.777037	0.968	71046.611	ug/L	968.387
75 As	101.177827	0.926	179231.035	ug/L	12407.926
82 Se	105.849657	0.833	17266.696	ug/L	408.346
72 Ge-1			1288616.579	ug/L	1345175.222
107 Ag	46.379927	0.130	325678.895	ug/L	89.000
111 Cd	94.048169	0.585	141791.055	ug/L	43.831
121 Sb	48.849075	0.521	225617.085	ug/L	1870.871
135 Ba	102.194495	0.750	143841.696	ug/L	105.667
115 In-1			1245792.597	ug/L	1330242.006
205 Tl	45.834913	1.850	507547.540	ug/L	1135.075
208 Pb	93.992445	0.208	1344049.141	ug/L	524.339
169 Tm-1			789594.802	ug/L	990326.744
50 Cr	423.000943	3.456	75472.500	ug/L	-328.794
53 Cr	123.459952	1.527	159599.095	ug/L	44771.947
61 Ni	142.444596	2.887	6221.188	ug/L	1805.522
63 Cu	102.389919	1.287	145284.960	ug/L	90.001
67 Zn	131.411937	1.341	8515.253	ug/L	907.799
66 Zn	104.987961	1.727	37317.534	ug/L	165.004
76 Se	-114.173504	19.090	-179524.397	ug/L	-181872.485
77 Se	155.140389	0.912	24962.233	ug/L	5348.477
78 Se	108.694208	0.580	56659.399	ug/L	13133.119
79 Br	-2295.955698	6.958	108011.727	ug/L	60817.930

72 Ge			1288616.579	ug/L	1345175.222
108 Cd	150.661637	0.937	15496.533	ug/L	4.692
114 Cd	95.772710	0.228	341591.246	ug/L	130.267
109 Ag	45.790349	0.619	111648.867	ug/L	35.000
115 In			1245792.597	ug/L	1330242.006
208 207.977	94.167584	0.181	685646.070	ug/L	264.004
207 Pb	93.407151	0.396	283088.482	ug/L	110.667
206 Pb	94.117490	0.169	375314.589	ug/L	149.668
169 Tm			789594.802	ug/L	990326.744
106 Pd	89.555484	0.917	12968.938	ug/L	7.000
83 Kr	3159.635656	5.178	992.039	ug/L	497.010
182 W			629.063	ug/L	3.333

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
> Li-1	6	87.177
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
> Ge-1	72	95.795
Ag	107	
Cd	111	
Sb	121	
Ba	135	
> In-1	115	93.652
Tl	205	
Pb	208	
> Tm-1	169	79.731
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
> Ge	72	95.795
Cd	108	
Cd	114	
Ag	109	
> In	115	93.652
207.977	208	
Pb	207	
Pb	206	
> Tm	169	79.731
Pd	106	
Kr	83	



SOP No. SAC-MT-0001

BJones

**Sample ID: Rinse**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 14:36:21

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\Rinse.038

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 6

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			2072241.915	ug/L	1669876.035
6 Li-1			813433.579	ug/L	729979.208
9 Be	0.002727	223.871	3.000	ug/L	2.000
27 Al	33.649672	1.357	177332.175	ug/L	12326.679
43 Ca	3.858292	37.051	465.012	ug/L	356.674
51 V	-0.771170	32.086	-13670.782	ug/L	-5198.236
52 Cr	1.399089	9.162	30816.912	ug/L	16431.081
55 Mn	0.085703	5.878	2248.623	ug/L	927.049
54 Fe	42.288723	7.457	101088.983	ug/L	65698.081
57 Fe	20.668585	6.720	16237.047	ug/L	9363.311
59 Co	0.007217	17.026	182.002	ug/L	95.334
60 Ni	0.008893	45.297	80.009	ug/L	54.217
65 Cu	0.048056	17.741	238.751	ug/L	120.136
68 Zn	0.657499	15.649	1630.152	ug/L	968.387
75 As	1.435122	23.005	16498.481	ug/L	12407.926
82 Se	-0.240404	54.769	408.453	ug/L	408.346
72 Ge-1			1491418.034	ug/L	1345175.222
107 Ag	0.003593	49.489	121.668	ug/L	89.000
111 Cd	0.012831	50.813	67.728	ug/L	43.831
121 Sb	-0.314474	1.309	348.340	ug/L	1870.871
135 Ba	0.047593	15.076	185.669	ug/L	105.667
115 In-1			1394767.231	ug/L	1330242.006
205 Tl	0.446163	26.373	7281.472	ug/L	1135.075
208 Pb	0.025698	7.259	978.354	ug/L	524.339
169 Tm-1			983691.301	ug/L	990326.744
50 Cr	-0.921994	1.395	-555.719	ug/L	-328.794
53 Cr	31.746568	4.813	84377.733	ug/L	44771.947
61 Ni	14.520637	41.649	2531.363	ug/L	1805.522
63 Cu	0.043769	27.802	171.671	ug/L	90.001
67 Zn	2.575188	35.855	1180.223	ug/L	907.799
66 Zn	0.734585	7.939	484.038	ug/L	165.004
76 Se	169.162872	8.595	-192567.787	ug/L	-181872.485
77 Se	36.325366	4.564	11307.449	ug/L	5348.477
78 Se	6.432604	8.106	17580.074	ug/L	13133.119
79 Br	-1193.712505	15.179	97373.144	ug/L	60817.930

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72 Ge			1491418.034	ug/L	1345175.222
108 Cd	0.226056	15.667	30.989	ug/L	4.692
114 Cd	0.019672	20.701	215.226	ug/L	130.267
109 Ag	0.004486	52.864	49.000	ug/L	35.000
115 In			1394767.231	ug/L	1330242.006
208 Tl	207.977	0.025858	12.993	ug/L	264.004
207 Pb	0.030161	10.491	223.670	ug/L	110.667
206 Pb	0.022014	4.441	258.004	ug/L	149.668
169 Tm			983691.301	ug/L	990326.744
106 Pd	0.032243	44.607	11.667	ug/L	7.000
83 Kr	387.234821	37.091	557.679	ug/L	497.010
182 W			7.333	ug/L	3.333

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
[> Li-1	6	111.432
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
[> Ge-1	72	110.872
Ag	107	
Cd	111	
Sb	121	
Ba	135	
[> In-1	115	104.851
Tl	205	
Pb	208	
[> Tm-1	169	99.330
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
[> Ge	72	110.872
Cd	108	
Cd	114	
Ag	109	
[> In	115	104.851
207.977	208	
Pb	207	
Pb	206	
[> Tm	169	99.330
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: CCV 5**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 14:40:38

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCV 5.039

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 4

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			2043669.670	ug/L	1669876.035
6 Li-1			799104.392	ug/L	729979.208
9 Be	100.939970	1.171	27952.244	ug/L	2.000
27 Al	5473.959533	0.518	26561907.712	ug/L	12326.679
43 Ca	5788.352642	0.402	104217.992	ug/L	356.674
51 V	107.159452	0.470	1088453.621	ug/L	-5198.236
52 Cr	108.832030	0.342	995052.239	ug/L	16431.081
55 Mn	98.833368	0.872	1404546.178	ug/L	927.049
54 Fe	5448.605839	0.348	3701833.785	ug/L	65698.081
57 Fe	5327.258768	0.560	1514993.025	ug/L	9363.311
59 Co	106.248619	0.492	1121997.718	ug/L	95.334
60 Ni	108.130909	0.880	240940.975	ug/L	54.217
65 Cu	105.710424	0.779	231300.694	ug/L	120.136
68 Zn	104.202693	0.484	89108.773	ug/L	968.387
75 As	105.927859	0.857	215906.050	ug/L	12407.926
82 Se	102.514660	0.471	19313.008	ug/L	408.346
72 Ge-1			1487078.527	ug/L	1345175.222
107 Ag	54.098726	1.000	412776.504	ug/L	89.000
111 Cd	106.172105	0.690	173931.699	ug/L	43.831
121 Sb	52.255206	1.219	262122.845	ug/L	1870.871
135 Ba	106.396325	0.622	162727.944	ug/L	105.667
115 In-1			1353722.995	ug/L	1330242.006
205 Tl	50.689367	0.332	702516.049	ug/L	1135.075
208 Pb	101.640814	0.377	1819320.981	ug/L	524.339
169 Tm-1			988401.408	ug/L	990326.744
50 Cr	103.378240	1.165	21007.992	ug/L	-328.794
53 Cr	118.282750	1.616	178534.449	ug/L	44771.947
61 Ni	117.532745	1.957	6272.957	ug/L	1805.522
63 Cu	105.550628	1.462	172838.603	ug/L	90.001
67 Zn	107.799246	2.541	8241.189	ug/L	907.799
66 Zn	103.357809	0.450	42399.704	ug/L	165.004
76 Se	180.667623	9.408	-191387.563	ug/L	-181872.485
77 Se	121.374725	0.471	23824.349	ug/L	5348.477
78 Se	108.419304	0.575	65257.398	ug/L	13133.119
79 Br	-471.480132	18.245	79018.070	ug/L	60817.930

[>]	72 Ge			1487078.527	ug/L	1345175.222
[>]	108 Cd	107.663665	0.902	12034.599	ug/L	4.692
[>]	114 Cd	106.076981	0.621	411109.290	ug/L	130.267
[>]	109 Ag	53.748670	0.530	142399.853	ug/L	35.000
[>]	115 In			1353722.995	ug/L	1330242.006
[>]	208 207.977	101.638570	0.506	926358.508	ug/L	264.004
[>]	207 Pb	101.586542	1.305	385381.526	ug/L	110.667
[>]	206 Pb	101.686160	0.262	507580.947	ug/L	149.668
[>]	169 Tm			988401.408	ug/L	990326.744
[>]	106 Pd	107.017846	0.670	15496.377	ug/L	7.000
[>]	83 Kr	517.022942	51.454	578.013	ug/L	497.010
[>]	182 W			63.334	ug/L	3.333

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
[>]	Li-1	6
[>]	Be	9
[>]	Al	27
[>]	Ca	43
[>]	V	51
[>]	Cr	52
[>]	Mn	55
[>]	Fe	54
[>]	Fe	57
[>]	Co	59
[>]	Ni	60
[>]	Cu	65
[>]	Zn	68
[>]	As	75
[>]	Se	82
[>]	Ge-1	72
[>]	Ag	107
[>]	Cd	111
[>]	Sb	121
[>]	Ba	135
[>]	In-1	115
[>]	Tl	205
[>]	Pb	208
[>]	Tm-1	169
[>]	Cr	50
[>]	Cr	53
[>]	Ni	61
[>]	Cu	63
[>]	Zn	67
[>]	Zn	66
[>]	Se	76
[>]	Se	77
[>]	Se	78
[>]	Br	79
[>]	Ge	72
[>]	Cd	108
[>]	Cd	114
[>]	Ag	109
[>]	In	115
[>]	207.977	208
[>]	Pb	207
[>]	Pb	206
[>]	Tm	169
[>]	Pd	106
[>]	Kr	83

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: CCB 5**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 14:44:54

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCB 5.040

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 5

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1936456.306	ug/L	1669876.035
6 Li-1			789437.659	ug/L	729979.208
9 Be	0.010376	35.419	5.000	ug/L	2.000
27 Al	0.774326	35.109	16994.874	ug/L	12326.679
43 Ca	-0.042014	5709.472	384.675	ug/L	356.674
51 V	-0.373441	30.660	-9348.478	ug/L	-5198.236
52 Cr	1.006767	6.074	26607.416	ug/L	16431.081
55 Mn	0.015716	20.800	1220.418	ug/L	927.049
54 Fe	13.247028	9.850	79667.245	ug/L	65698.081
57 Fe	1.995592	30.971	10676.080	ug/L	9363.311
59 Co	0.005781	42.456	162.668	ug/L	95.334
60 Ni	0.001595	137.409	62.077	ug/L	54.217
65 Cu	0.017472	9.691	167.287	ug/L	120.136
68 Zn	-0.062613	66.325	995.390	ug/L	968.387
75 As	1.220788	8.546	15695.978	ug/L	12407.926
82 Se	-0.207536	18.483	404.177	ug/L	408.346
72 Ge-1			1454438.827	ug/L	1345175.222
107 Ag	0.004244	84.114	122.001	ug/L	89.000
111 Cd	0.014074	63.124	67.070	ug/L	43.831
121 Sb	-0.041381	133.561	1684.165	ug/L	1870.871
135 Ba	0.007072	119.673	117.334	ug/L	105.667
115 In-1			1342312.534	ug/L	1330242.006
205 Tl	0.088003	19.406	2335.314	ug/L	1135.075
208 Pb	0.008067	50.375	663.343	ug/L	524.339
169 Tm-1			982021.782	ug/L	990326.744
50 Cr	-0.464912	26.161	-449.569	ug/L	-328.794
53 Cr	17.791514	2.822	67393.575	ug/L	44771.947
61 Ni	5.904926	41.350	2162.082	ug/L	1805.522
63 Cu	0.004790	100.477	105.002	ug/L	90.001
67 Zn	0.682373	73.541	1026.502	ug/L	907.799
66 Zn	0.107483	14.027	221.341	ug/L	165.004
76 Se	86.957299	12.484	-192093.286	ug/L	-181872.485
77 Se	21.721081	4.637	8917.180	ug/L	5348.477
78 Se	3.930479	3.656	15998.526	ug/L	13133.119
79 Br	-410.884027	15.526	75814.688	ug/L	60817.930

[> 72 Ge			1454438.827	ug/L	1345175.222
108 Cd	0.042656	99.302	9.445	ug/L	4.692
114 Cd	0.009386	21.591	167.532	ug/L	130.267
109 Ag	0.002287	99.109	41.334	ug/L	35.000
[> 115 In			1342312.534	ug/L	1330242.006
208 207.977	0.009966	45.237	352.007	ug/L	264.004
207 Pb	0.009355	26.612	145.001	ug/L	110.667
206 Pb	0.003621	182.294	166.335	ug/L	149.668
[> 169 Tm			982021.782	ug/L	990326.744
106 Pd	0.039152	87.051	12.667	ug/L	7.000
83 Kr	195.744765	18.542	527.678	ug/L	497.010
182 W			4.667	ug/L	3.333

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
[> Li-1	6	108.145
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
[> Ge-1	72	108.123
Ag	107	
Cd	111	
Sb	121	
Ba	135	
[> In-1	115	100.907
Tl	205	
Pb	208	
[> Tm-1	169	99.161
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
[> Ge	72	108.123
Cd	108	
Cd	114	
Ag	109	
[> In	115	100.907
207.977	208	
Pb	207	
Pb	206	
[> Tm	169	99.161
Pd	106	
Kr	83	

W 182

BJones

**Sample ID: CCV 6**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 14:49:11

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCV 6.041

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 4

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

### Sample Result Summary

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1957658.629	ug/L	1669876.035
6 Li-1			782168.114	ug/L	729979.208
9 Be	103.023350	0.749	27926.496	ug/L	2.000
27 Al	5475.908399	0.703	25966247.162	ug/L	12326.679
43 Ca	5724.548060	1.284	100727.885	ug/L	356.674
51 V	106.100058	0.331	1053094.019	ug/L	-5198.236
52 Cr	107.509603	0.401	960785.257	ug/L	16431.081
55 Mn	98.564163	0.293	1368817.467	ug/L	927.049
54 Fe	5396.138349	0.394	3583371.858	ug/L	65698.081
57 Fe	5313.878857	0.809	1476830.923	ug/L	9363.311
59 Co	106.007566	0.467	1093970.954	ug/L	95.334
60 Ni	106.238031	0.218	231336.672	ug/L	54.217
65 Cu	104.480004	0.075	223405.050	ug/L	120.136
68 Zn	103.297284	0.736	86331.138	ug/L	968.387
75 As	105.242963	0.295	209711.972	ug/L	12407.926
82 Se	102.247660	0.344	18825.217	ug/L	408.346
72 Ge-1			1453210.259	ug/L	1345175.222
107 Ag	53.219508	0.597	397520.576	ug/L	89.000
111 Cd	106.007734	1.878	169990.005	ug/L	43.831
121 Sb	52.695046	2.562	258720.602	ug/L	1870.871
135 Ba	106.287838	0.861	159134.711	ug/L	105.667
115 In-1			1325268.399	ug/L	1330242.006
205 Tl	50.782792	0.857	703739.323	ug/L	1135.075
208 Pb	102.023130	0.760	1826002.854	ug/L	524.339
169 Tm-1			988338.815	ug/L	990326.744
50 Cr	103.068452	2.511	20466.775	ug/L	-328.794
53 Cr	114.652437	0.944	170598.709	ug/L	44771.947
61 Ni	109.168288	1.067	5832.772	ug/L	1805.522
63 Cu	105.362517	0.369	168603.960	ug/L	90.001
67 Zn	106.050241	0.511	7939.072	ug/L	907.799
66 Zn	102.186521	0.954	40965.770	ug/L	165.004
76 Se	165.477325	8.964	-187823.336	ug/L	-181872.485
77 Se	117.833277	0.812	22771.056	ug/L	5348.477
78 Se	105.952044	0.505	62643.622	ug/L	13133.119
79 Br	-180.147419	31.853	70101.055	ug/L	60817.930

	72 Ge			1453210.259	ug/L	1345175.222
	108 Cd	107.621886	1.819	11776.012	ug/L	4.692
	114 Cd	105.587879	1.933	400568.659	ug/L	130.267
	109 Ag	53.056877	1.354	137600.888	ug/L	35.000
	115 In			1325268.399	ug/L	1330242.006
	208 Tl	207.977	102.300389	932301.460	ug/L	264.004
	207 Pb		101.899650	386540.807	ug/L	110.667
	206 Pb		101.610729	507160.587	ug/L	149.668
	169 Tm			988338.815	ug/L	990326.744
	106 Pd		104.886106	15187.837	ug/L	7.000
	83 Kr		331.915404	549.012	ug/L	497.010
	182 W			62.667	ug/L	3.333

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
Li-1	6	107.149
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
Ge-1	72	108.031
Ag	107	
Cd	111	
Sb	121	
Ba	135	
In-1	115	99.626
Tl	205	
Pb	208	
Tm-1	169	99.799
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
Ge	72	108.031
Cd	108	
Cd	114	
Ag	109	
In	115	99.626
207.977	208	
Pb	207	
Pb	206	
Tm	169	99.799
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: CCB 6**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 14:53:28

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCB 6.042

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 5

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1889269.183	ug/L	1669876.035
6 Li-1			780478.961	ug/L	729979.208
9 Be	0.001989	222.229	2.667	ug/L	2.000
27 Al	0.848140	4.039	17167.159	ug/L	12326.679
43 Ca	-0.243954	568.586	377.341	ug/L	356.674
51 V	-0.173228	42.495	-7274.314	ug/L	-5198.236
52 Cr	0.876570	11.921	25189.566	ug/L	16431.081
55 Mn	0.010293	31.758	1133.073	ug/L	927.049
54 Fe	9.921112	15.652	76673.711	ug/L	65698.081
57 Fe	0.112293	886.137	10046.542	ug/L	9363.311
59 Co	0.005089	13.473	154.001	ug/L	95.334
60 Ni	0.002065	139.771	62.447	ug/L	54.217
65 Cu	0.010464	10.765	150.663	ug/L	120.136
68 Zn	-0.050350	51.712	994.723	ug/L	968.387
75 As	0.937461	31.091	15005.630	ug/L	12407.926
82 Se	-0.332460	73.895	377.704	ug/L	408.346
72 Ge-1			1439013.462	ug/L	1345175.222
107 Ag	0.004502	61.653	123.668	ug/L	89.000
111 Cd	0.015453	56.749	69.268	ug/L	43.831
121 Sb	-0.011368	575.591	1827.861	ug/L	1870.871
135 Ba	0.013157	63.554	126.334	ug/L	105.667
115 In-1			1339896.809	ug/L	1330242.006
205 Tl	0.059555	26.708	1947.885	ug/L	1135.075
208 Pb	0.007006	12.819	646.009	ug/L	524.339
169 Tm-1			984187.725	ug/L	990326.744
50 Cr	-0.232206	28.017	-398.212	ug/L	-328.794
53 Cr	11.180014	7.036	59696.632	ug/L	44771.947
61 Ni	0.644063	223.168	1954.278	ug/L	1805.522
63 Cu	0.004043	85.997	102.668	ug/L	90.001
67 Zn	0.797316	111.748	1022.834	ug/L	907.799
66 Zn	0.119367	30.456	223.675	ug/L	165.004
76 Se	39.981202	31.346	-192489.807	ug/L	-181872.485
77 Se	17.060730	7.362	8157.662	ug/L	5348.477
78 Se	2.742613	12.348	15291.664	ug/L	13133.119
79 Br	-231.241853	33.288	70653.196	ug/L	60817.930

Report Date/Time: Thursday, January 11, 2007 15:09:00

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Sample ID: CCB 6

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> 72 Ge			1439013.462	ug/L	1345175.222
108 Cd	0.019755	298.757	6.902	ug/L	4.692
114 Cd	0.009815	44.048	168.887	ug/L	130.267
109 Ag	0.006260	5.295	51.667	ug/L	35.000
> 115 In			1339896.809	ug/L	1330242.006
208 207.977	0.006831	13.092	324.339	ug/L	264.004
207 Pb	0.010229	34.976	148.668	ug/L	110.667
206 Pb	0.004875	34.575	173.002	ug/L	149.668
> 169 Tm			984187.725	ug/L	990326.744
106 Pd	0.032243	53.927	11.667	ug/L	7.000
83 Kr	51.064091	560.550	505.010	ug/L	497.010
182 W			3.667	ug/L	3.333

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

Sc	45	
> Li-1	6	106.918
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
> Ge-1	72	106.976
Ag	107	
Cd	111	
Sb	121	
Ba	135	
> In-1	115	100.726
Tl	205	
Pb	208	
> Tm-1	169	99.380
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
> Ge	72	106.976
Cd	108	
Cd	114	
Ag	109	
> In	115	100.726
207.977	208	
Pb	207	
Pb	206	
> Tm	169	99.380
Pd	106	
Kr	83	

W 182

SOP No. SAC-MT-0001

BJones

**Sample ID: JMNKGL**

Sample Description: G7A110000-50 LCSD

Batch ID: 7011050

Sample Date/Time: Thursday, January 11, 2007 15:36:19

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\JMNKGL.051

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 101

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc.	Mean	Conc.	RSD	Meas. Intens.	Mean	Sample Unit	Blank Intensity
45 Sc					1685805.368	ug/L	1669876.035	
6 Li-1					751429.179	ug/L	729979.208	
9 Be	175.165843	1.192			45611.238	ug/L	2.000	
27 Al	912.529382	0.722			4131451.951	ug/L	12326.679	
43 Ca	1081.274988	0.203			18416.694	ug/L	356.674	
51 V	154.327602	0.379			1461232.357	ug/L	-5198.236	
52 Cr	158.178097	0.399			1338285.351	ug/L	16431.081	
55 Mn	164.512767	0.265			2175233.109	ug/L	927.049	
54 Fe	1015.755002	0.060			697266.146	ug/L	65698.081	
57 Fe	942.949842	1.012			257496.906	ug/L	9363.311	
59 Co	158.272614	1.135			1555465.427	ug/L	95.334	
60 Ni	172.272585	1.171			357219.341	ug/L	54.217	
65 Cu	173.512273	1.552			353251.031	ug/L	120.136	
68 Zn	164.734178	0.817			130527.402	ug/L	968.387	
75 As	159.763733	0.386			296576.744	ug/L	12407.926	
82 Se	156.848852	0.906			27277.266	ug/L	408.346	
72 Ge-1					1383987.384	ug/L	1345175.222	
107 Ag	42.305713	0.148			326938.787	ug/L	89.000	
111 Cd	165.672916	0.306			274847.648	ug/L	43.831	
121 Sb	40.452362	3.303			205914.377	ug/L	1870.871	
135 Ba	177.334624	0.518			274610.691	ug/L	105.667	
115 In-1					1371019.915	ug/L	1330242.006	
205 Tl	47.284218	0.553			637199.777	ug/L	1135.075	
208 Pb	176.675227	0.086			3074248.489	ug/L	524.339	
169 Tm-1					960962.532	ug/L	990326.744	
50 Cr	151.761815	2.561			28858.953	ug/L	-328.794	
53 Cr	146.261492	2.144			194572.379	ug/L	44771.947	
61 Ni	164.961742	1.989			7444.860	ug/L	1805.522	
63 Cu	170.746698	1.072			260156.161	ug/L	90.001	
67 Zn	163.294994	2.669			11137.821	ug/L	907.799	
66 Zn	160.835420	0.615			61308.900	ug/L	165.004	
76 Se	-123.813426	18.978			-193290.737	ug/L	-181872.485	
77 Se	131.033609	1.186			23499.738	ug/L	5348.477	
78 Se	157.730832	1.224			82211.242	ug/L	13133.119	
79 Br	1735.902311	2.707			22183.368	ug/L	60817.930	

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Sample ID: JMNKGL

> 72 Ge			1383987.384	ug/L	1345175.222
108 Cd	163.498976	1.299	18506.327	ug/L	4.692
114 Cd	164.742800	0.895	646526.072	ug/L	130.267
109 Ag	42.016518	1.418	112745.738	ug/L	35.000
> 115 In			1371019.915	ug/L	1330242.006
208 207.977	174.595328	0.423	1546933.452	ug/L	264.004
207 Pb	187.400003	0.115	691114.763	ug/L	110.667
206 Pb	172.321928	0.986	836200.274	ug/L	149.668
> 169 Tm			960962.532	ug/L	990326.744
200 Hg			45.000	ug/L	0.000
106 Pd	167.002647	0.858	24178.361	ug/L	7.000
83 Kr	-165.957192	84.353	471.009	ug/L	497.010
182 W			83.001	ug/L	3.333

### Internal Standard Recoveries

Analyte	Mass	Int Std % Recovery
Sc	45	
> Li-1	6	102.938
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
> Ge-1	72	102.885
Ag	107	
Cd	111	
Sb	121	
Ba	135	
> In-1	115	103.065
Tl	205	
Pb	208	
> Tm-1	169	97.035
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
> Ge	72	102.885
Cd	108	
Cd	114	
Ag	109	
> In	115	103.065
207.977	208	
Pb	207	
Pb	206	
> Tm	169	97.035
Hg	200	

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G6L220174 Sample ID: JMNKGL

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Pd	106
Kr	83
W	182

SOP No. SAC-MT-0001

BJones

**Sample ID: CCV 7**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 15:40:34

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCV 7.052

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 4

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1783183.993	ug/L	1669876.035
6 Li-1			756856.145	ug/L	729979.208
9 Be	103.925436	1.440	27256.387	ug/L	2.000
27 Al	5565.534798	1.262	24434154.421	ug/L	12326.679
43 Ca	5664.376332	1.561	92278.050	ug/L	356.674
51 V	107.922728	1.181	991893.082	ug/L	-5198.236
52 Cr	107.236482	1.507	887371.675	ug/L	16431.081
55 Mn	106.977876	2.400	1375357.328	ug/L	927.049
54 Fe	5431.182819	1.668	3338662.186	ug/L	65698.081
57 Fe	5326.958554	1.186	1370663.660	ug/L	9363.311
59 Co	103.954268	0.848	993290.101	ug/L	95.334
60 Ni	103.888003	1.896	209441.390	ug/L	54.217
65 Cu	103.247154	1.835	204396.236	ug/L	120.136
68 Zn	104.404933	1.178	80780.538	ug/L	968.387
75 As	104.249362	1.217	192455.937	ug/L	12407.926
82 Se	101.347778	0.970	17281.457	ug/L	408.346
72 Ge-1			1345620.668	ug/L	1345175.222
107 Ag	49.044937	1.347	375731.647	ug/L	89.000
111 Cd	97.723170	1.065	160744.806	ug/L	43.831
121 Sb	50.042194	0.511	252141.275	ug/L	1870.871
135 Ba	99.330490	1.159	152541.508	ug/L	105.667
115 In-1			1359355.438	ug/L	1330242.006
205 Tl	51.292517	1.243	687139.803	ug/L	1135.075
208 Pb	103.821266	0.864	1796345.683	ug/L	524.339
169 Tm-1			955436.027	ug/L	990326.744
50 Cr	105.843018	1.194	19473.438	ug/L	-328.794
53 Cr	106.276094	2.205	149680.101	ug/L	44771.947
61 Ni	100.192446	1.408	5105.167	ug/L	1805.522
63 Cu	102.809641	1.550	152326.358	ug/L	90.001
67 Zn	105.451175	2.413	7313.214	ug/L	907.799
66 Zn	103.400895	1.857	38376.558	ug/L	165.004
76 Se	124.999622	21.331	-175888.712	ug/L	-181872.485
77 Se	110.205075	2.542	20064.092	ug/L	5348.477
78 Se	104.873971	1.433	57544.623	ug/L	13133.119
79 Br	43.969602	147.523	59827.841	ug/L	60817.930

[> 72 Ge			1345620.668	ug/L	1345175.222
108 Cd	98.837677	1.942	11092.454	ug/L	4.692
114 Cd	98.336122	0.729	382688.729	ug/L	130.267
109 Ag	48.721041	1.108	129606.784	ug/L	35.000
[> 115 In			1359355.438	ug/L	1330242.006
208 207.977	103.821609	1.257	914673.238	ug/L	264.004
207 Pb	103.930791	0.564	381128.365	ug/L	110.667
206 Pb	103.737399	0.432	500544.080	ug/L	149.668
[> 169 Tm			955436.027	ug/L	990326.744
200 Hg			42.000	ug/L	0.000
106 Pd	98.020768	1.759	14194.173	ug/L	7.000
83 Kr	31.915002	669.027	502.010	ug/L	497.010
182 W			63.667	ug/L	3.333

### Internal Standard Recoveries

Analyte	Mass	Int Std % Recovery
Sc	45	
[> Li-1	6	103.682
Be	9	
Al	27	
Ca	43	
V	51	
Cr	52	
Mn	55	
Fe	54	
Fe	57	
Co	59	
Ni	60	
Cu	65	
Zn	68	
As	75	
Se	82	
[> Ge-1	72	100.033
Ag	107	
Cd	111	
Sb	121	
Ba	135	
[> In-1	115	102.189
Tl	205	
Pb	208	
[> Tm-1	169	96.477
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
Se	76	
Se	77	
Se	78	
Br	79	
[> Ge	72	100.033
Cd	108	
Cd	114	
Ag	109	
[> In	115	102.189
207.977	208	
Pb	207	
Pb	206	
[> Tm	169	96.477
Hg	200	

Pd	106
Kr	83
W	182

SOP No. SAC-MT-0001

BJones

**Sample ID: CCB 7**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 15:44:51

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset070111a1\CCB 7.053

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 5

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1725775.854	ug/L	1669876.035
6 Li-1			746812.650	ug/L	729979.208
9 Be	0.008811	65.653	4.333	ug/L	2.000
27 Al	0.950484	2.666	16385.327	ug/L	12326.679
43 Ca	-0.036949	1543.434	353.674	ug/L	356.674
51 V	0.293446	39.021	-2473.197	ug/L	-5198.236
52 Cr	0.553390	3.263	20783.320	ug/L	16431.081
55 Mn	0.010285	8.861	1052.063	ug/L	927.049
54 Fe	6.780983	17.249	69315.168	ug/L	65698.081
57 Fe	-2.945771	33.594	8552.033	ug/L	9363.311
59 Co	0.009239	4.389	182.335	ug/L	95.334
60 Ni	0.004352	107.847	62.565	ug/L	54.217
65 Cu	-0.001885	105.737	115.630	ug/L	120.136
68 Zn	-0.167821	32.261	834.373	ug/L	968.387
75 As	0.722820	12.331	13564.393	ug/L	12407.926
82 Se	-0.256287	51.923	363.169	ug/L	408.346
72 Ge-1			1336129.794	ug/L	1345175.222
107 Ag	0.008075	43.537	154.668	ug/L	89.000
111 Cd	0.003491	144.416	51.156	ug/L	43.831
121 Sb	0.061411	84.892	2245.958	ug/L	1870.871
135 Ba	0.012321	77.451	128.334	ug/L	105.667
115 In-1			1375376.662	ug/L	1330242.006
205 Tl	0.021832	70.180	1395.113	ug/L	1135.075
208 Pb	0.011097	8.865	702.011	ug/L	524.339
169 Tm-1			961209.334	ug/L	990326.744
50 Cr	0.334370	2.417	-264.477	ug/L	-328.794
53 Cr	-0.542829	172.741	43939.754	ug/L	44771.947
61 Ni	-0.853601	321.482	1765.499	ug/L	1805.522
63 Cu	0.003565	399.867	94.668	ug/L	90.001
67 Zn	-0.296104	151.453	883.792	ug/L	907.799
66 Zn	0.130139	15.952	211.674	ug/L	165.004
76 Se	6.723551	476.500	-180329.472	ug/L	-181872.485
77 Se	7.674948	7.386	6329.936	ug/L	5348.477
78 Se	2.364618	18.425	14038.731	ug/L	13133.119
79 Br	-53.515588	60.923	61609.464	ug/L	60817.930

[>]	72 Ge			1336129.794	ug/L	1345175.222
[>]	108 Cd	0.008066	484.441	5.778	ug/L	4.692
[>]	114 Cd	0.003278	142.044	147.548	ug/L	130.267
[>]	109 Ag	0.005002	42.787	49.667	ug/L	35.000
[>]	115 In			1375376.662	ug/L	1330242.006
[>]	208 207.977	0.012906	8.921	370.675	ug/L	264.004
[>]	207 Pb	0.010564	24.560	146.335	ug/L	110.667
[>]	206 Pb	0.008198	31.418	185.002	ug/L	149.668
[>]	169 Tm			961209.334	ug/L	990326.744
[>]	200 Hg			36.334	ug/L	0.000
[>]	106 Pd	0.011515	91.652	8.667	ug/L	7.000
[>]	83 Kr	-61.702148	36.330	487.343	ug/L	497.010
[>]	182 W			10.333	ug/L	3.333

### Internal Standard Recoveries

Analyte Mass Int Std % Recovery

[>]	Sc	45	
[>]	Li-1	6	102.306
[>]	Be	9	
[>]	Al	27	
[>]	Ca	43	
[>]	V	51	
[>]	Cr	52	
[>]	Mn	55	
[>]	Fe	54	
[>]	Fe	57	
[>]	Co	59	
[>]	Ni	60	
[>]	Cu	65	
[>]	Zn	68	
[>]	As	75	
[>]	Se	82	
[>]	Ge-1	72	99.328
[>]	Ag	107	
[>]	Cd	111	
[>]	Sb	121	
[>]	Ba	135	
[>]	In-1	115	103.393
[>]	Tl	205	
[>]	Pb	208	
[>]	Tm-1	169	97.060
[>]	Cr	50	
[>]	Cr	53	
[>]	Ni	61	
[>]	Cu	63	
[>]	Zn	67	
[>]	Zn	66	
[>]	Se	76	
[>]	Se	77	
[>]	Se	78	
[>]	Br	79	
[>]	Ge	72	99.328
[>]	Cd	108	
[>]	Cd	114	
[>]	Ag	109	
[>]	In	115	103.393
[>]	207.977	208	
[>]	Pb	207	
[>]	Pb	206	
[>]	Tm	169	97.060
[>]	Hg	200	

Pd	106
Kr	83
W	182

SOP No. SAC-MT-0001

BJones

**Sample ID: CCV 8**

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 15:57:30

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCV 8.054

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 4

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

**Sample Result Summary**

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1822473.896	ug/L	1669876.035
6 Li-1			754627.223	ug/L	729979.208
9 Be	104.874303	0.650	27426.918	ug/L	2.000
52 Cr	106.318825	1.022	881177.558	ug/L	16431.081
55 Mn	104.896390	1.236	1350637.100	ug/L	927.049
59 Co	101.797690	0.796	974026.298	ug/L	95.334
60 Ni	101.869535	0.501	205679.925	ug/L	54.217
65 Cu	101.500429	0.428	201240.506	ug/L	120.136
68 Zn	102.561565	0.557	79483.045	ug/L	968.387
72 Ge-1			1347452.745	ug/L	1345175.222
111 Cd	97.720114	0.479	160082.250	ug/L	43.831
121 Sb	48.760574	1.093	244712.647	ug/L	1870.871
135 Ba	99.761211	0.075	152581.204	ug/L	105.667
115 In-1			1353684.802	ug/L	1330242.006
208 Pb	104.301186	0.258	1820445.989	ug/L	524.339
169 Tm-1			963785.244	ug/L	990326.744
50 Cr	114.574063	1.629	21131.379	ug/L	-328.794
53 Cr	8.553159	5.064	53299.696	ug/L	44771.947
61 Ni	99.360030	5.977	5083.467	ug/L	1805.522
63 Cu	101.770709	0.588	151001.968	ug/L	90.001
67 Zn	104.025212	0.815	7237.705	ug/L	907.799
66 Zn	100.869850	1.075	37494.931	ug/L	165.004
72 Ge			1347452.745	ug/L	1345175.222
108 Cd	97.828757	0.938	10935.751	ug/L	4.692
114 Cd	98.055545	0.444	380019.113	ug/L	130.267
115 In			1353684.802	ug/L	1330242.006
208 207.977	104.385260	0.507	927697.087	ug/L	264.004
207 Pb	103.551351	0.512	383058.753	ug/L	110.667
206 Pb	104.717561	0.346	509690.149	ug/L	149.668
169 Tm			963785.244	ug/L	990326.744
106 Pd	97.068071	1.351	14056.283	ug/L	7.000
83 Kr	-1193.597107	3.705	310.005	ug/L	497.010
182 W			64.334	ug/L	3.333

**Internal Standard Recoveries**

Analyte	Mass	Int Std % Recovery
Sc	45	
[> Li-1	6	103.377
Be	9	
Cr	52	
Mn	55	
Co	59	
Ni	60	
Cu	65	
Zn	68	
[> Ge-1	72	100.169
Cd	111	
Sb	121	
Ba	135	
[> In-1	115	101.762
Pb	208	
[> Tm-1	169	97.320
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
[> Ge	72	100.169
Cd	108	
Cd	114	
[> In	115	101.762
207.977	208	
Pb	207	
Pb	206	
[> Tm	169	97.320
Pd	106	
Kr	83	
W	182	

Sample ID: CCB 8

Sample Description:

Batch ID:

Sample Date/Time: Thursday, January 11, 2007 16:01:11

Method File: C:\elandata\Method\7011050.mth

Dataset File: C:\elandata\Dataset\070111a1\CCB 8.055

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: C:\elandata\Optimize\default.dac

Autosampler Position: 5

Number of Replicates: 3

Dual Detector Mode: Dual

Initial Sample Quantity (mg):

Sample Prep Volume (mL):

Aliquot Volume (mL):

Diluted To Volume (mL):

### Sample Result Summary

Mass Analyte	Conc. Mean	Conc. RSD	Meas. Intens. Mean	Sample Unit	Blank Intensity
45 Sc			1743403.580	ug/L	1669876.035
6 Li-1			746087.039	ug/L	729979.208
9 Be	0.012716	76.416	5.333	ug/L	2.000
52 Cr	0.587324	1.154	20772.294	ug/L	16431.081
55 Mn	0.009804	21.864	1031.728	ug/L	927.049
59 Co	0.008929	22.656	177.002	ug/L	95.334
60 Ni	0.006536	70.274	66.022	ug/L	54.217
65 Cu	0.003063	313.420	123.682	ug/L	120.136
68 Zn	0.059954	408.134	993.391	ug/L	968.387
72 Ge-1			1318046.121	ug/L	1345175.222
111 Cd	0.013209	17.110	66.418	ug/L	43.831
121 Sb	-0.006385	384.241	1877.202	ug/L	1870.871
135 Ba	0.001658	313.727	110.334	ug/L	105.667
115 In-1			1357211.288	ug/L	1330242.006
208 Pb	0.012560	10.892	723.345	ug/L	524.339
169 Tm-1			955852.022	ug/L	990326.744
50 Cr	1.418237	7.669	-62.297	ug/L	-328.794
53 Cr	-29.063762	1.179	15766.018	ug/L	44771.947
61 Ni	-2.311998	124.907	1694.460	ug/L	1805.522
63 Cu	-0.007257	45.769	77.668	ug/L	90.001
67 Zn	0.524179	193.582	920.803	ug/L	907.799
66 Zn	0.364182	62.893	293.348	ug/L	165.004
72 Ge			1318046.121	ug/L	1345175.222
108 Cd	-0.015274	215.450	3.075	ug/L	4.692
114 Cd	0.004387	12.769	149.947	ug/L	130.267
115 In			1357211.288	ug/L	1330242.006
208 207.977	0.012097	27.242	361.341	ug/L	264.004
207 Pb	0.014696	31.690	160.668	ug/L	110.667
206 Pb	0.011780	19.800	201.336	ug/L	149.668
169 Tm			955852.022	ug/L	990326.744
106 Pd	0.013818	229.129	9.000	ug/L	7.000
83 Kr	-1131.895188	9.116	319.673	ug/L	497.010
182 W			5.333	ug/L	3.333

### Internal Standard Recoveries

Analyte	Mass	Int Std % Recovery
Sc	45	
[> Li-1	6	102.207
Be	9	
Cr	52	
Mn	55	
Co	59	
Ni	60	
Cu	65	
Zn	68	
[> Ge-1	72	97.983
Cd	111	
Sb	121	
Ba	135	
[> In-1	115	102.027
Pb	208	
[> Tm-1	169	96.519
Cr	50	
Cr	53	
Ni	61	
Cu	63	
Zn	67	
Zn	66	
[> Ge	72	97.983
Cd	108	
Cd	114	
[> In	115	102.027
207.977	208	
Pb	207	
Pb	206	
[> Tm	169	96.519
Pd	106	
Kr	83	
W	182	

## Sample Preparation Log

**STL SACRAMENTO**  
**Metals - Air Toxics - Preparation Log**

Date: 11-Jan-07

Analyst: LoeraM

Matrix: AIR

Fraction: Filter

SOP:

Method: ICPMS

LOT ID		Workorder		Volume Received	Volume Removed	Initial Prep Volume	Final Prep Volume	Batch	Prep Factor
G7A110000	50	JMNKGB	2A	NA	NA	NA	100	7011050	1.2
G7A110000	50	JMNKGC	2A	NA	NA	NA	100	7011050	1.2
G7A110000	50	JMNKGL	2A	NA	NA	NA	100	7011050	1.2
G6L220174	1	JL2G1	2A	9	0.75	0.75	100	7011050	1.2
G6L220174	2	JL2HC	2A	9	0.75	0.75	100	7011050	1.2
G6L220174	3	JL2HF	2A	9	0.75	0.75	100	7011050	1.2
G6L220174	4	JL2HH	2A	9	0.75	0.75	100	7011050	1.2

For 1" filter: factor = 9 (9/1)  
For 0.75" filter factor = 12 (9/0.75)

Page 1 of 1  
QA-372B mlt 02/20/03

STL Sacramento  
Metals Preparation Spiking  
Documentation Form

SEVERN  
TRENT

STL

Lot # G6L220174-(i-5)

Batch Number:	<u>7011050</u>	EPA Analytical Method ID:	<u>6020</u>	Spiked Date:	<u>01/11/07</u>
MS Run #:	<u>ei/11/07 mc</u>	EPA Prep Method ID:	<u>2A</u>	Hot Plate Microwave ID:	<u>4</u>
Analyst Initial/Date:	<u>MC/01/11/07</u>	Witness Initial/Date:	<u>WS 01/11/07</u>	Hot Plate Temp	<u>Initial: 96°</u>
Correct Folder ID	<u>7011050</u>	Witness:		Final:	<u>91°</u>
				Thermometer ID:	<u>BT011</u>

Check If Used	Bottle Name	Elements	Stock Concentration (mg/L)	Tracking Number	LCS/DCS Volume Spiked	MS/SD Volume Spiked	Expiration Date
	ICP Part 1 5% HNO <sub>3</sub>	Ca, Mg Al, As, Ba, Se, Sn, Ti Fe, Mo, Ti Sb, Co, Pb, Mn, Ni, V, Zn Cu	5,000 200 100 50 25				
		Cr , Be, Cd Ag	20 5 5.0				
	ICP Part 2 2% HNO <sub>3</sub>	K, Na	5,000				
		P, S	1,000				
		B, Li, Sr	100				
	Si H2O/Tri HF	Si	1,000				<u>01/11/07 mc</u>
✓	XCAL-45 5% HNO <sub>3</sub>	Al, K, Mg, Ca, Na, Fe, P, B, Si As, Be, Cd, Cr, Co, Cu, Pb, Mn, Mo, Ni, Se, U, V, Zn, Ba, Li, Sn, Sr, Ti Sb, Ag, Ti	50 10 2.5	1774-17 et 8-16	2.0ml		12/07
	Misc. Elements						<u>01/11/07 mc</u>

Prep Reagents:

Check If Used	Reagent	Supplier	Lot Number	Check If Used	Reagent	Supplier	Lot Number
✓	70% HNO <sub>3</sub>	Mallinckrodt	C37055		30% H <sub>2</sub> O <sub>2</sub>	Mallinckrodt	01/11/07 mc
	37% HCl	Mallinckrodt			49% HF	Fisher	

ICP matrix spike and LCS: For final volumes of 100ml, add 1ml from bottles ICP Part 1, ICP Part 2. Add 1ml of Silica (Si) when requested.

ICPMS matrix spike and LCS: For final volumes of 100ml, add 2ml of XCAL-45.

Amount to spike is as listed above for final volumes of 100ml. If a different final volume is used, increase or decrease the amount you spike proportionally.

AIR, 9056, Sulfate

## **General Anions by IC**

*Fluoride  
Chloride  
Nitrite  
Bromide  
Nitrate  
Phosphate  
Sulfate*

# STL Sacramento

## LEVEL 1&2 REVIEW CHECKLIST GENERAL CHEMISTRY

LAB NUMBERS: G7A100214 and G6L220174 (+ Br MDL cont.)

ANALYSIS: 300.0 DATE: 11/10/07 ANALYST: OS

### LEVEL 1 RUN REVIEW:

1. Samples are properly preserved and verified
2. Run set-up meets standard criteria (Curve, ICV, ICB, REF...CCV,CCB..)
3. Calibration criteria met
4. Calibration verifications and second source reference are in control
5. Batch QC are in control (Blank, LCS, MSQC, LCS dup when necessary)
6. Calculations have been checked
7. QAS +/or QAPP was consulted and followed for client specifics
8. Standard Tracking # noted on benchsheet +/or runlog
9. Manual integration performed, documented and approved

YES	NO	NA
✓		✓
✓		
✓		
✓		
✓		
✓		
✓		
✓		
✓		

### LEVEL 1 DATA REVIEW:

1. Benchsheet complete
2. QAS +/or QAPP consulted and followed for client specifics for data entry
3. Data entered properly
4. Copy of prep sheet and prep checklist attached to run
5. Analyst observations, HTV's, Anomalies properly documented and attached to run.

✓		
✓		
✓		
✓		
✓		✓

Completed By & Date: OS 01/12/07

### LEVEL 2 REVIEW:

1. Level 1 checklist complete and verified
2. Deviations, Anomalies, Holding times checked and approved
3. Reprep/Reanalysis documented and chemist notified
4. Client specific criteria met
5. Data entry checked and released in Quantims
6. Indication on benchsheet on review and release (dated & signed)
7. Manual integration reviewed, approved, and properly documented

✓		
✓		
✓		
✓		
✓		

Completed By & Date: SDR 1-18-07

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Sulfate in Filters

Lot:	G6L220174	Analysis Date:	01/11/07
Default RL =	0.040	mg/Filter	
Dilution for Fraction of Filter Analyzed*			
Sample ID	Work Order	Instrument Dilution Factor	Adjusted Sulfate (mg/L)
G6L220174-1	JL2G1	1	0.858
G6L220174-2	JL2HC	1	0.780
G6L220174-3	JL2HF	1	0.750
G6L220174-4	JL2HH	1	0.721
MS/SD True Value = 4.800 mg/Filter			
Reviewed By: JDR 1.8.0+			

\* Dilution for Fraction of Filter Analyzed ----->

If entire Filter is used, enter 1  
If only a portion of Filter is used, enter "Dilution" based on the fraction used  
(i.e. if 1/12 of filter is used for analysis, enter 12; if half of filter is used, enter 2, etc)

LCS True Value = N/A

Analyst: CS

Date Entered: 1/12/07

Reviewed By: JDR

RQC050

Severn Trent Laboratories, Inc.  
WET CHEM BATCHSHEETRun Date: 1/11/07  
Time: 13:53:29

STL Sacramento

## PRODUCTION FIGURES - WET CHEM

<u>TOTAL NUMBER</u>	<u>SAMPLE NUMBER</u>	<u>QC</u>	<u>RE-RUN MATRIX</u>	<u>RE-RUN OTHER</u>	<u>MISC NUMBER</u>	<u>TOTAL HOURS</u>	<u>EXPANDED DELIVERABLE</u>

METHOD: GK Sulfate (9056, Ion Chromatography)  
 QC BATCH #: 7011335 INITIALS: DATA ENTRY:  
 PREP DATE: 1/11/07 10:00 PREP \_\_\_\_\_  
 COMP DATE: 1/11/07 11:00 ANAL \_\_\_\_\_  
 USER: OUNIS INITIALS \_\_\_\_\_  
 DATE \_\_\_\_\_

<u>Work Order</u>	<u>Lab Number</u>	<u>Structured Analysis</u>	<u>Exp. Del.</u>	<u>Analysis Date</u>	<u>Sample ID:</u>
		Analysis	Del.	Date	Sample ID:
JL2G1-1-AM	G-6L220174-001	XX S 82 GK YM	Y-D	_____	P-0825
JL2HC-1-AM	G-6L220174-002	XX S 82 GK YM	Y-D	_____	000583
JL2HF-1-AM	G-6L220174-003	XX S 82 GK YM	Y-D	_____	000584
JL2HH-1-AM	G-6L220174-004	XX S 82 GK YM	Y-D	_____	000585
JMP05-1-AA	G-7A110000-335-B	XX S 82 GK YM	_____	_____	INTRALAB BLANK
JMP05-1-AC	G-7A110000-335-C	XX S 82 GK YM	_____	_____	INTRALAB CHECK
JMP05-1-AD	G-7A110000-335-L	XX S 82 GK YM	_____	_____	INTRALAB CHECK

## Control Limits

(85-115)

(85-115)

PDE115

Severn Trent Laboratories, Inc.  
 Inorganics Batch Review  
 QC Batch 7011335

Date 1/12/2007

Time 13:10:31

Method Code: GR Sulfate (9056, Ion Chromatography)

Analyst: Sonia Ouni

Work Order	Result	Units	IDL/Dil	Prep. - Anal.	Total Solids	PSRL Flag	R/R	Rounded Result	Output Dil.
JJZGI-1-AM	0.374	mg	0.48	01/11/07	.00	N		0.37 B	0.48
JL2HF-1-AM	0.360	mg	0.48	01/11/07	.00	N		0.36 B	0.48
JL2HH-1-AM	0.346	mg	0.48	01/11/07	.00	N		0.35 B	0.48
JMP05-1-AA	ND	mg	0.48	01/11/07	.00	ND		0.48	12.00

Notes:

B Estimated result. Result is less than RL.

LCS - LCSD	Exception Code	Measured Sample	True Spike	Measured SPIKE	Measured Dup.	SPIKE DUP	Recovered RPD	Prep - Anal.	Dil.
Work Order	JMP05-1-AC	4.800	4.800	4.6488	4.4304	92.30	4.81	01/11/07	1.00

Notes:

TEST	TOTAL #	SAMPLE #	PRODUCTION QC #	TOTALS MATRIX #	OTHER #	MISC #	HOURS
	0	0	0	0	0	0	.0

← : 01/09/07

IGC  
Method 300.0

← . exp: 02/09/07

Sequence: 070111A  
Operator: ounis

Eluent: 2869-wc-44-4

Page 1 of 3

Printed: 1/12/2007 1:16:18 PM

Title: AS14A 013004  
Datasource: D4N34341\_local Spike: 2627-wc-59-3-504  
Location: ICS1000\SEQUENCES\2007 2724-wc-46-10  
Timebase: ICS1000  
#Samples: 30

Created:

1/11/2007 10:46:50 AM by ounis  
(Modified, not saved)

SONIA OUNI

ci: 11104

No.	Name	Dil. Factor	Type	F [ppm] Fluoride	CL [ppm] Chloride	NO2 [ppm] Nitrite	Br [ppm] Bromide	NO3 [ppm] Nitrate	PO4 [ppm] Phosphate	SO4 [ppm] Sulfate
1	BLANK	1.0000	Standard	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	1R	1.0000	Standard	0.516	0.991	0.053	0.562	0.051	0.202	1.011
3	2R	1.0000	Standard	2.431	4.747	0.484	2.515	0.502	2.435	4.954
4	3R	1.0000	Standard	4.759	9.407	0.941	4.888	0.943	4.988	9.950
5	4R	1.0000	Standard	9.944	19.932	1.981	10.002	2.051	10.096	20.144
6	5R	1.0000	Standard	25.603	51.405	5.158	25.045	5.014	24.980	49.924
7	6R	1.0000	Standard	49.746	99.470	9.933	49.987	9.989	49.997	100.016
8	BLANK	1.0000	Unknown	n.a.	n.a.	n.a.	n.a.	n.a.	1.070	n.a.
9	ICV	1.0000	Unknown	31.069	78.137	n.a.	30.542	7.663	30.292	76.565
10	ICB	1.0000	Unknown	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
11	JMMPX 5X G7A100244-3	5.0000	Unknown	0.855	479.658	n.a.	n.a.	n.a.	n.a.	0.720
12	JMMPX S 10X G7A100244-3	10.0000	Unknown	47.687	581.717	8.729	48.375	9.726	48.340	96.314
13	JMMPX D 10X G7A100244-3	10.0000	Unknown	47.391	583.302	8.670	47.824	9.709	47.532	97.228
14	JL2G1 1X G6L220174-1	1.0000	Unknown	n.a.	0.221	n.a.	n.a.	0.546	0.602	0.858
15	JL2HC 1X G6L220174-2	1.0000	Unknown	n.a.	0.220	n.a.	n.a.	0.572	0.599	0.780
16	JL2HF 1X G6L220174-3	1.0000	Unknown	n.a.	0.180	n.a.	n.a.	0.521	0.627	0.750
17	JL2HH 1X G6L220174-4	1.0000	Unknown	n.a.	0.194	n.a.	n.a.	0.494	0.541	0.721
18	MB	1.0000	Unknown	0.141	n.a.	n.a.	n.a.	n.a.	0.434	n.a.
19	LCS	1.0000	Unknown	4.774	9.329	0.970	4.795	0.956	5.173	9.685
20	DCS	1.0000	Unknown	4.640	9.064	0.930	4.672	0.955	4.898	9.230
21	CCV	1.0000	Unknown	24.780	50.285	4.946	24.540	4.934	24.636	49.378
22	CCB	1.0000	Unknown	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
23	JMMPX 1X G7A100244-3	1.0000	Unknown	n.a.	165.951	n.a.	0.442	n.a.	n.a.	0.582
24	JMMPX S 1X G7A100244-3	1.0000	Unknown	n.a.	165.583	n.a.	0.475	0.040	n.a.	10.582
25	JMMPX D 1X G7A100244-3	1.0000	Unknown	n.a.	162.635	n.a.	0.408	n.a.	n.a.	10.148
26	COMF SPIKE BR 0.1 PPM	1.0000	Unknown	n.a.	n.a.	n.a.	0.089	n.a.	n.a.	n.a.
27	COMF SPIKE BR 0.15 PPM	1.0000	Unknown	n.a.	n.a.	n.a.	0.139	n.a.	n.a.	n.a.
28	CCV	1.0000	Unknown	24.967	50.776	5.028	24.799	4.979	24.853	49.797
29	CCB	1.0000	Unknown	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
30	SHUTDOWN	1.0000	Unknown	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Sum			279.302	2523.203	47.824	280.100	59.645	282.298	599.339

Method 300.0, reporting Cl, Br and SO4

Title: AS14A 013004

Datasource: D4N34341\_local

Location: ICS1000\SEQUENCES\2007

Timebase: ICS1000

#Samples: 30

Created:

1/11/2007 10:46:50 AM by ounis  
 (Modified, not saved)

No.	Name	Status	Program	Method
1	BLANK	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
2	1R	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
3	2R	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
4	3R	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
5	4R	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
6	5R	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
7	6R	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
8	BLANK	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
9	ICV	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
10	ICB	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
11	JMMPX 5X G7A100244-3	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
12	JMMPX S 10X G7A100244-3	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
13	JMMPX D 10X G7A100244-3	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
14	JL2G1 1X G6L220174-1	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
15	JL2HC 1X G6L220174-2	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
16	JL2HF 1X G6L220174-3	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
17	JL2HH 1X G6L220174-4	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
18	MB	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
19	LCS	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
20	DCS	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
21	CCV	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
22	CCB	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
23	JMMPX 1X G7A100244-3	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
24	JMMPX S 1X G7A100244-3	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
25	JMMPX D 1X G7A100244-3	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
26	COMF SPIKE BR 0.1 PPM	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
27	COMF SPIKE BR 0.15 PPM	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
28	CCV	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
29	CCB	Finished	AS14A PROGRAM	AS14A METHODHIGH 8PTCURVE
30	SHUTDOWN	Finished	ICS1000 SHUTDOWN PROGRAM	AS14A METHODHIGH 8PTCURVE
	Sum			

Title: AS14A 013004

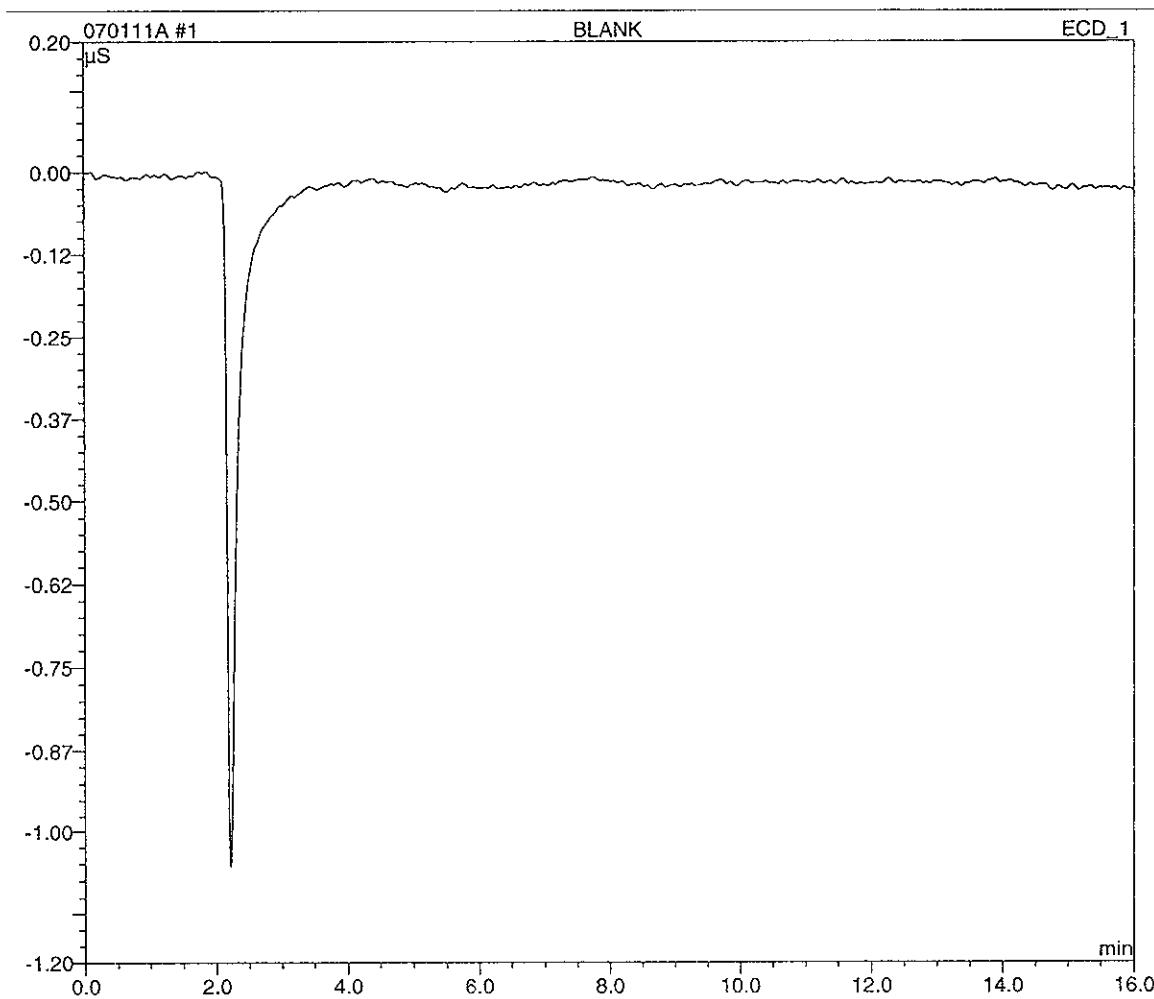
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 (Modified, not saved)

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1	BLANK	1/9/2007 2:48:57 PM	100.0		OUNI SONIA	1.0000
2	1R	1/9/2007 3:07:27 PM	100.0	2724-WC-45-4	OUNI SONIA	1.0000
3	2R	1/9/2007 3:25:58 PM	100.0	2724-WC-45-8	OUNI SONIA	1.0000
4	3R	1/9/2007 3:44:28 PM	100.0	2724-WC-46-1	OUNI SONIA	1.0000
5	4R	1/9/2007 4:02:58 PM	100.0	2724-WC-46-4	OUNI SONIA	1.0000
6	5R	1/9/2007 4:21:28 PM	100.0	2724-WC-46-7	OUNI SONIA	1.0000
7	6R	1/9/2007 4:39:58 PM	100.0	2724-WC-46-10	OUNI SONIA	1.0000
8	BLANK	1/11/2007 11:06:32 AM	100.0		OUNI SONIA	1.0000
9	ICV	1/11/2007 11:25:02 AM	100.0	2724-WC-12-5	OUNI SONIA	1.0000
10	ICB	1/11/2007 11:43:32 AM	100.0		OUNI SONIA	1.0000
11	JMMPX 5X G7A100244-3	1/11/2007 12:02:03 PM	100.0		OUNI SONIA	1.0000
12	JMMPX S 10X G7A100244-3	1/11/2007 12:20:33 PM	100.0	2724-WC-46-10	OUNI SONIA	1.0000
13	JMMPX D 10X G7A100244-3	1/11/2007 12:39:04 PM	100.0	2724-WC-46-10	OUNI SONIA	1.0000
14	JL2G1 1X G6L220174-1	1/11/2007 12:57:34 PM	100.0		OUNI SONIA	1.0000
15	JL2HC 1X G6L220174-2	1/11/2007 1:16:04 PM	100.0		OUNI SONIA	1.0000
16	JL2HF 1X G6L220174-3	1/11/2007 1:34:34 PM	100.0		OUNI SONIA	1.0000
17	JL2HH 1X G6L220174-4	1/11/2007 1:53:04 PM	100.0		OUNI SONIA	1.0000
18	MB	1/11/2007 2:11:35 PM	100.0		OUNI SONIA	1.0000
19	LCS	1/11/2007 2:30:05 PM	100.0	2724-WC-46-10	OUNI SONIA	1.0000
20	DCS	1/11/2007 2:48:35 PM	100.0	2724-WC-46-10	OUNI SONIA	1.0000
21	CCV	1/11/2007 3:07:05 PM	100.0	2724-WC-46-7	OUNI SONIA	1.0000
22	CCB	1/11/2007 3:25:35 PM	100.0		OUNI SONIA	1.0000
23	JMMPX 1X G7A100244-3	1/11/2007 3:44:05 PM	100.0		OUNI SONIA	1.0000
24	JMMPX S 1X G7A100244-3	1/11/2007 4:02:35 PM	100.0	2627-WC-59-3	OUNI SONIA	1.0000
25	JMMPX D 1X G7A100244-3	1/11/2007 4:21:06 PM	100.0	2627-WC-59-3	OUNI SONIA	1.0000
26	COMF SPIKE BR 0.1 PPM	1/11/2007 4:39:36 PM	100.0		OUNI SONIA	1.0000
27	COMF SPIKE BR 0.15 PPM	1/11/2007 4:58:06 PM	100.0		OUNI SONIA	1.0000
28	CCV	1/11/2007 5:16:36 PM	100.0	2724-WC-46-7	OUNI SONIA	1.0000
29	CCB	1/11/2007 5:35:06 PM	100.0		OUNI SONIA	1.0000
30	SHUTDOWN	1/11/2007 5:53:36 PM	100.0		OUNI SONIA	1.0000
	Sum					

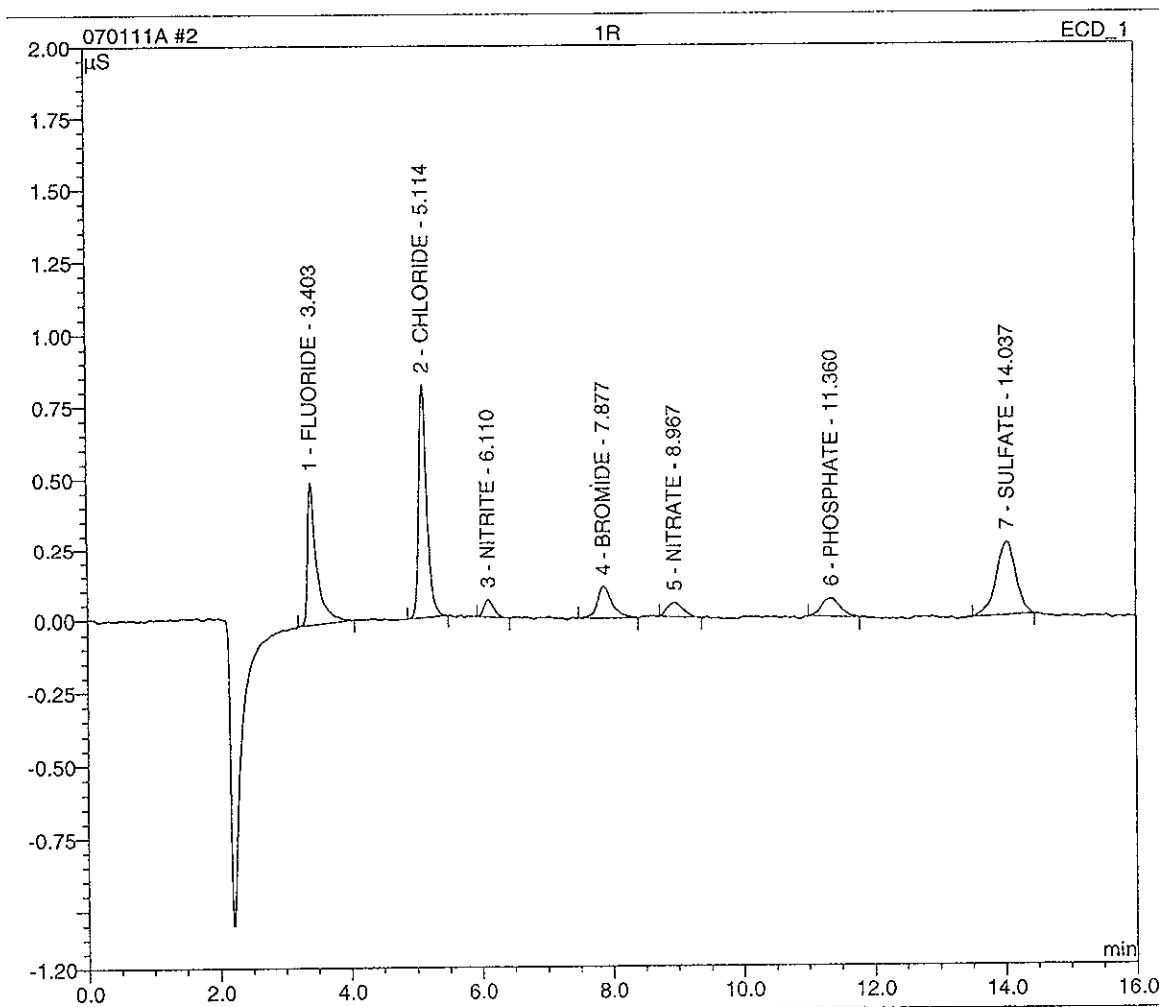
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Sample Type:	standard	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	09.01.07 14:48	Run Time:	16.00

No.	Time min	Peak Name	Type	Area µS·min	Height µS	Amount ppm
		TOTAL:		0.00	0.00	0.00



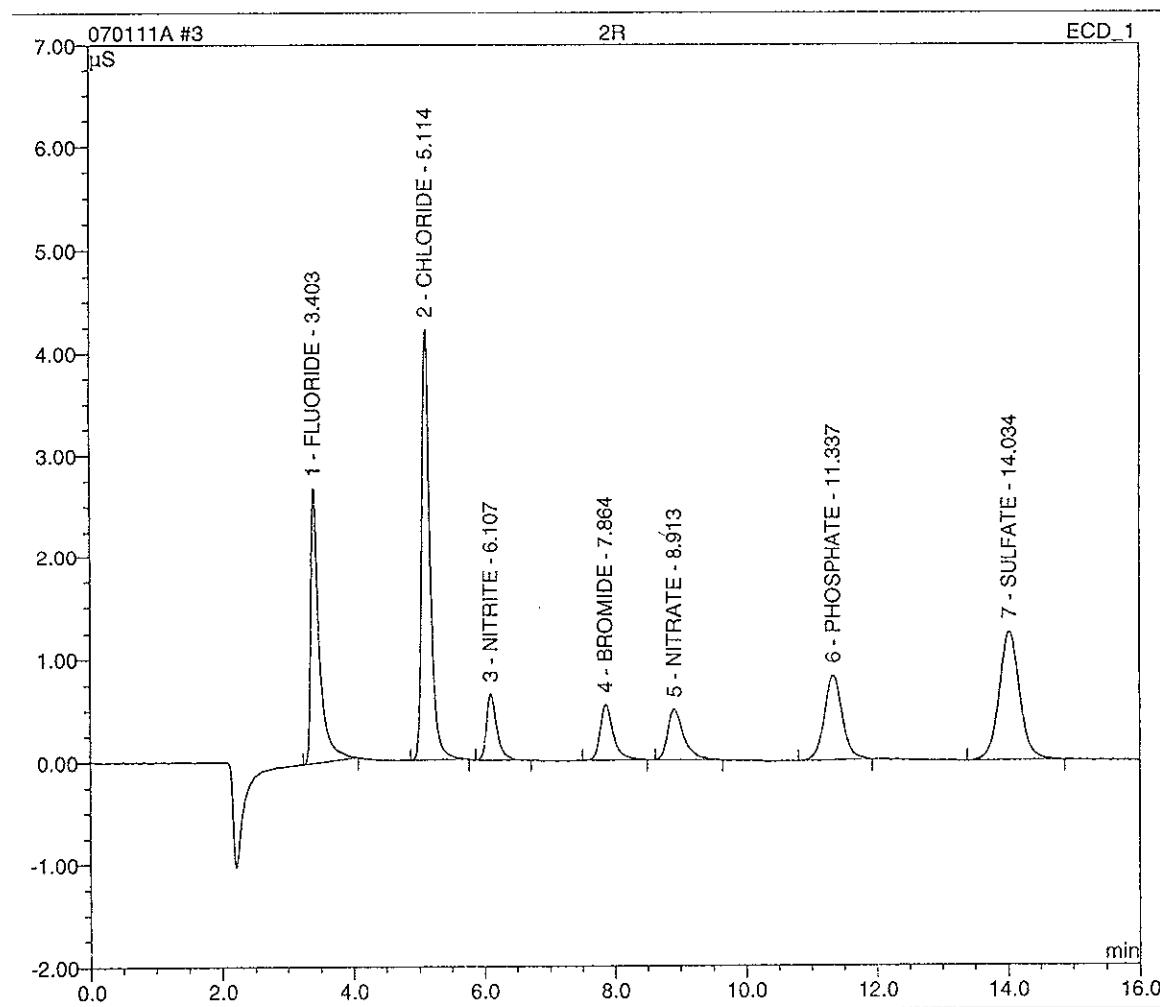
Sample Name:	1R	Inj. Vol.:	100.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	09.01.07 15:07	Run Time:	16.00

No.	Time min	Peak Name	Type	Area μS*min	Height μS	Amount ppm
1	3.40	FLUORIDE	BMB	0.081	0.504	0.5164
2	5.11	CHLORIDE	BMB	0.117	0.821	0.9907
3	6.11	NITRITE	BMB	0.010	0.060	0.0532
4	7.88	BROMIDE	BMB	0.029	0.109	0.5625
5	8.97	NITRATE	BMB	0.014	0.049	0.0512
6	11.36	PHOSPHATE	BMB	0.021	0.064	0.2023
7	14.04	SULFATE	BMB	0.092	0.266	1.0113
TOTAL:				0.36	1.87	3.39



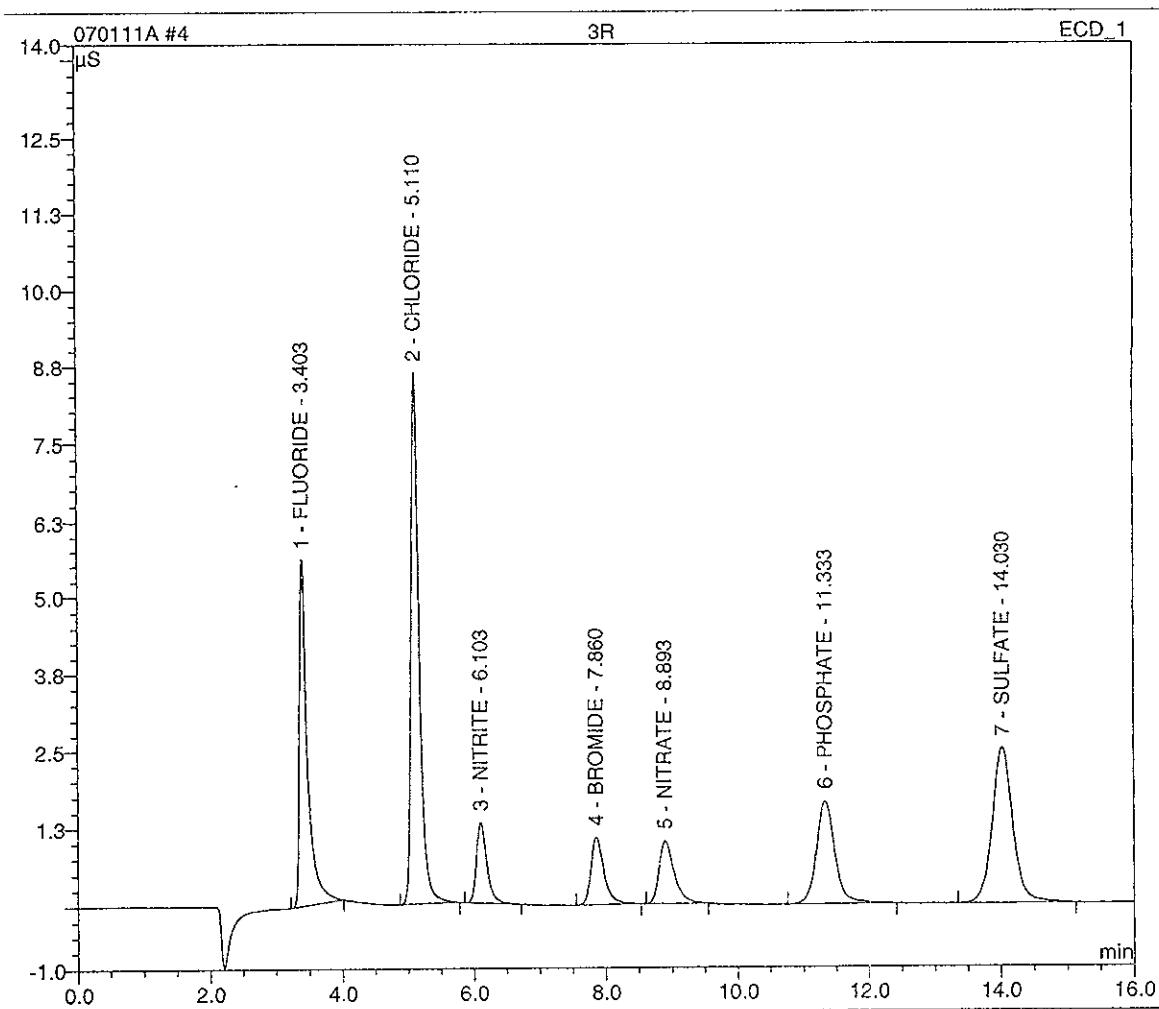
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Sample Type:	standard	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	09.01.07 15:25	Run Time:	16.00

No.	Time min	Peak Name	Type	Area μS/min	Height μS	Amount ppm
1	3.40	FLUORIDE	BMB	0.400	2.687	2.4307
2	5.11	CHLORIDE	BMB	0.614	4.210	4.7470
3	6.11	NITRITE	BMB	0.121	0.645	0.4836
4	7.86	BROMIDE	BMB	0.128	0.542	2.5152
5	8.91	NITRATE	BMB	0.142	0.498	0.5016
6	11.34	PHOSPHATE	BMB	0.264	0.828	2.4355
7	14.03	SULFATE	BMB	0.451	1.257	4.9545
TOTAL:				2.12	10.67	18.07



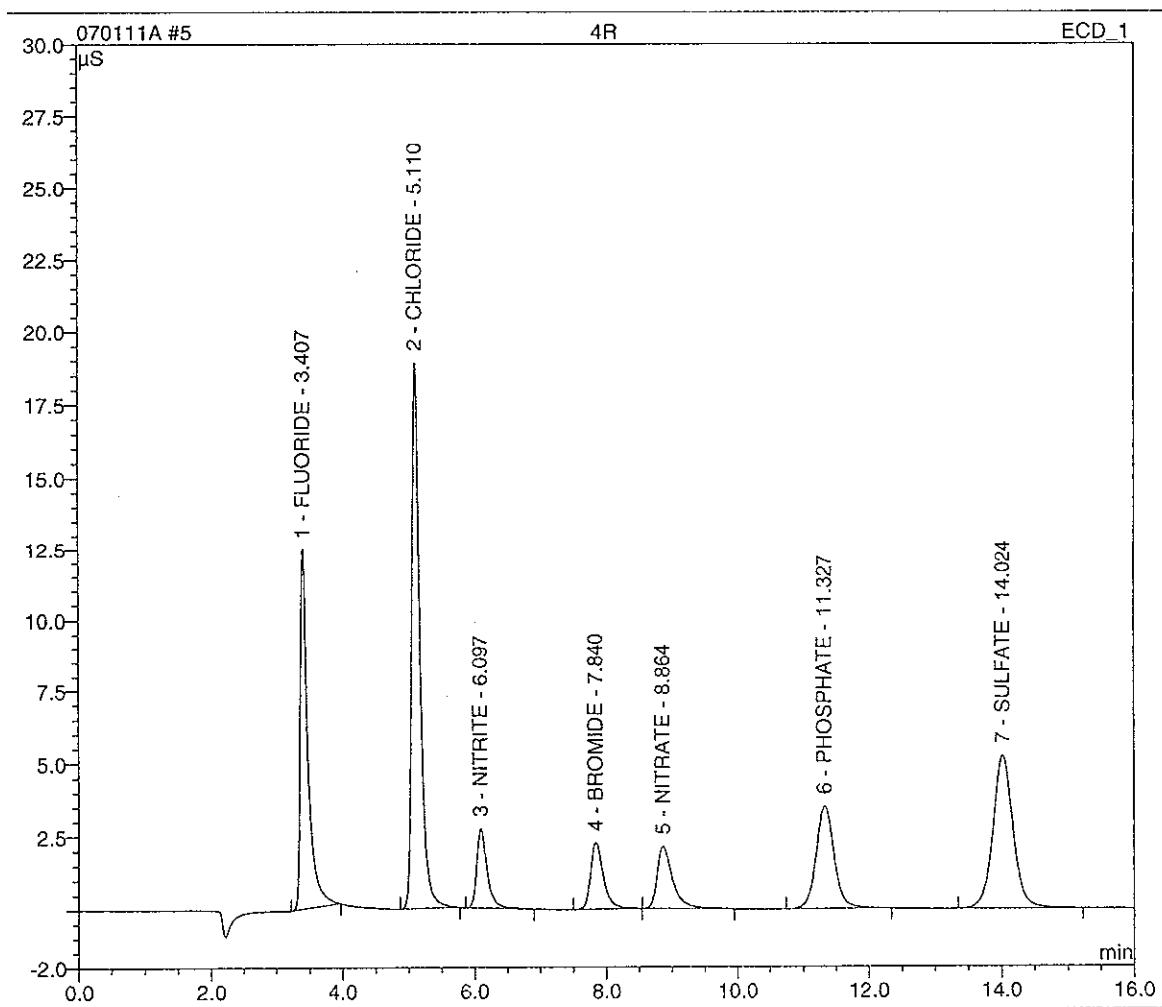
Sample Name:	3R	Inj. Vol.:	100.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	09.01.07 15:44	Run Time:	16.00

No.	Time min	Peak Name	Type	Area $\mu\text{S}^*\text{min}$	Height $\mu\text{S}$	Amount ppm
1	3.40	FLUORIDE	BMB	0.789	5.608	4.7591
2	5.11	CHLORIDE	BMB	1.242	8.605	9.4069
3	6.10	NITRITE	BMB	0.238	1.291	0.9409
4	7.86	BROMIDE	BMB	0.250	1.081	4.8876
5	8.89	NITRATE	BMB	0.268	1.001	0.9429
6	11.33	PHOSPHATE	BMB	0.546	1.656	4.9881
7	14.03	SULFATE	BMB	0.912	2.513	9.9504
TOTAL:				4.24	21.76	35.88



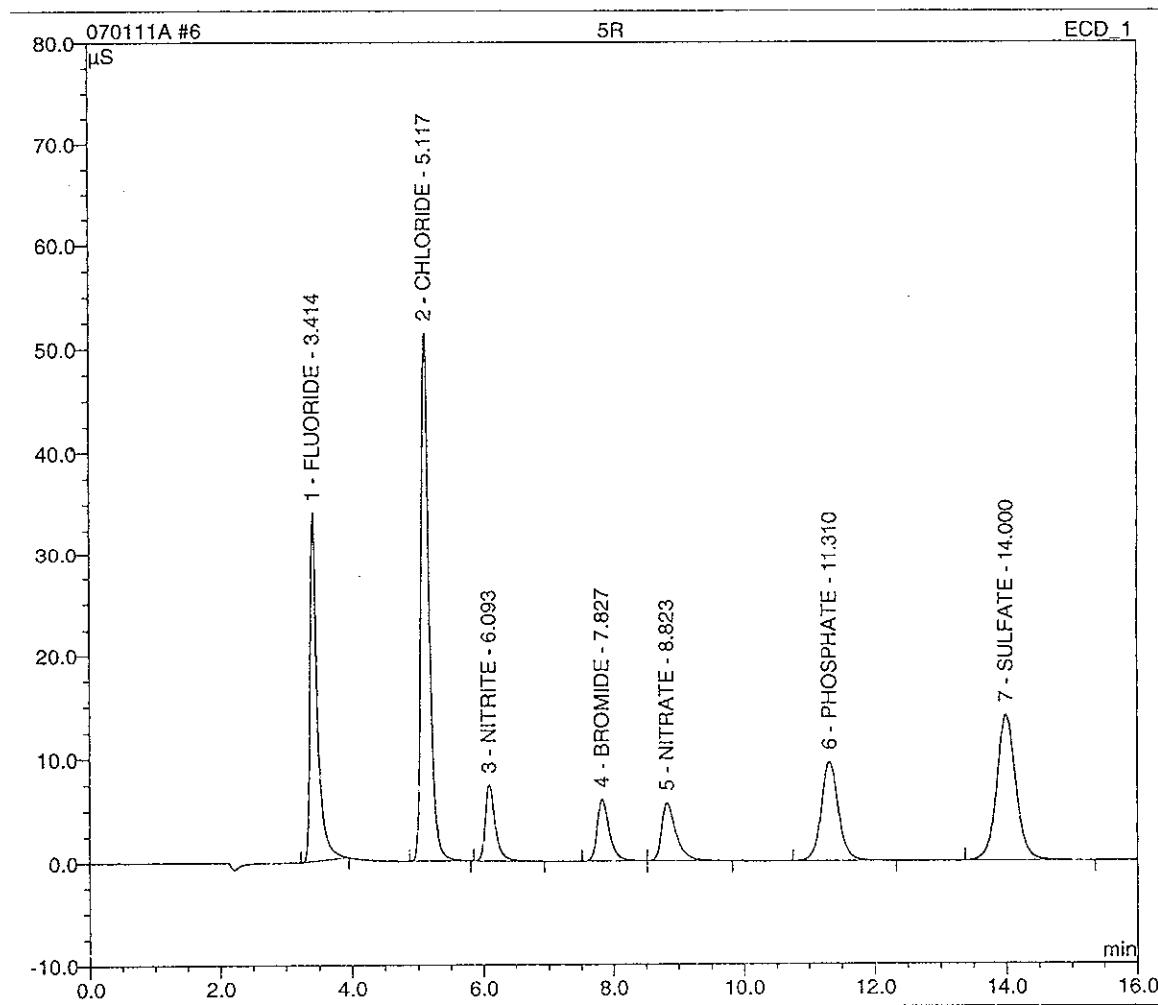
Sample Name:	4R	Inj. Vol.:	100.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	09.01.07 16:02	Run Time:	16.00

No.	Time min	Peak Name	Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount ppm
1	3.41	FLUORIDE	BMB	1.661	12.484	9.9437
2	5.11	CHLORIDE	BMB	2.713	18.887	19.9317
3	6.10	NITRITE	BMB	0.505	2.711	1.9813
4	7.84	BROMIDE	BMB	0.515	2.265	10.0024
5	8.86	NITRATE	BMB	0.588	2.121	2.0510
6	11.33	PHOSPHATE	BMB	1.125	3.509	10.0965
7	14.02	SULFATE	BMB	1.872	5.241	20.1439
TOTAL:				8.98	47.22	74.15



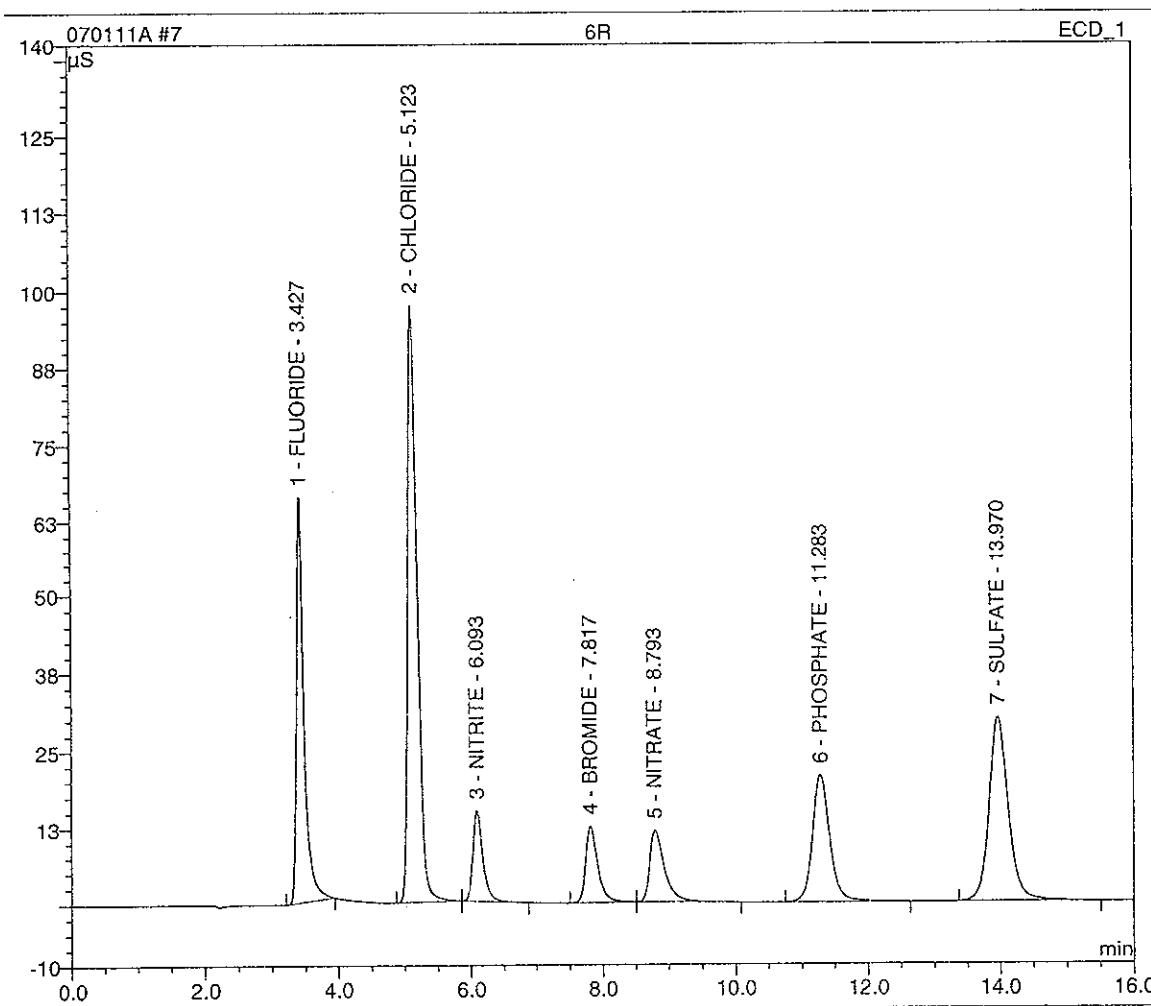
Sample Name:	5R	Inj. Vol.:	100.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	09.01.07 16:21	Run Time:	16.00

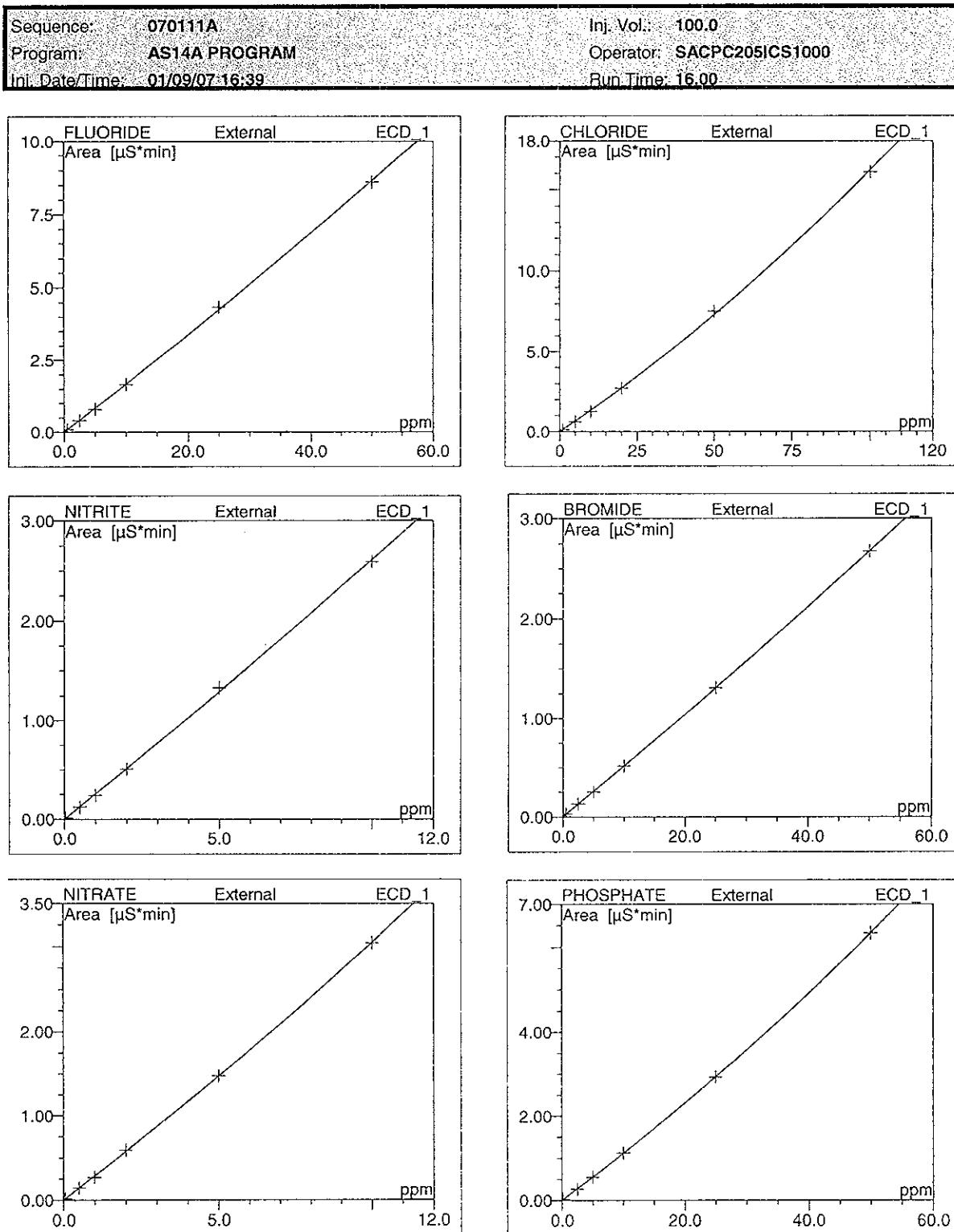
No.	Time min	Peak Name	Type	Area μS*min	Height μS	Amount ppm
1	3.41	FLUORIDE	BMB	4.340	34.053	25.6032
2	5.12	CHLORIDE	BMB	7.524	51.379	51.4052
3	6.09	NITRITE	BMB	1.330	7.300	5.1583
4	7.83	BROMIDE	BMb	1.308	5.964	25.0453
5	8.82	NITRATE	bMB	1.472	5.592	5.0137
6	11.31	PHOSPHATE	BMB	2.924	9.533	24.9804
7	14.00	SULFATE	BMB	4.827	14.032	49.9244
TOTAL:				23.72	127.85	187.13



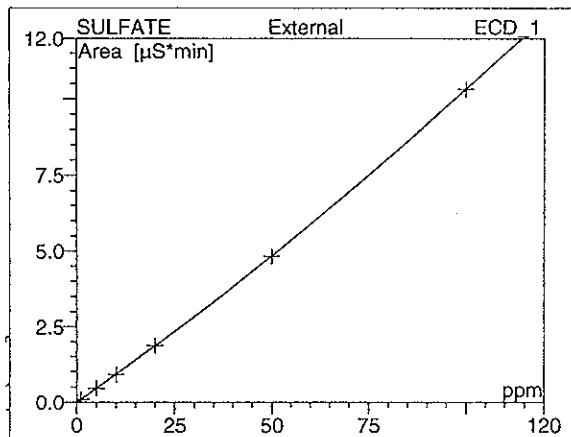
Sample Name:	6R	Inj. Vol.:	100.0
Sample Type:	standard	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	09.01.07 16:39	Run Time:	16.00

No.	Time min.	Peak Name	Type	Area μS*min	Height μS	Amount ppm
1	3.43	FLUORIDE	BMB	8.600	66.206	49.7457
2	5.12	CHLORIDE	Bmb	16.072	97.453	99.4702
3	6.09	NITRITE	bMB	2.590	14.853	9.9325
4	7.82	BROMIDE	BMb	2.674	12.589	49.9870
5	8.79	NITRATE	bMB	3.042	11.781	9.9894
6	11.28	PHOSPHATE	BMB	6.322	20.749	49.9966
7	13.97	SULFATE	BMB	10.306	30.053	100.0156
TOTAL:				49.61	253.68	369.14



**Calibration Batch Report**

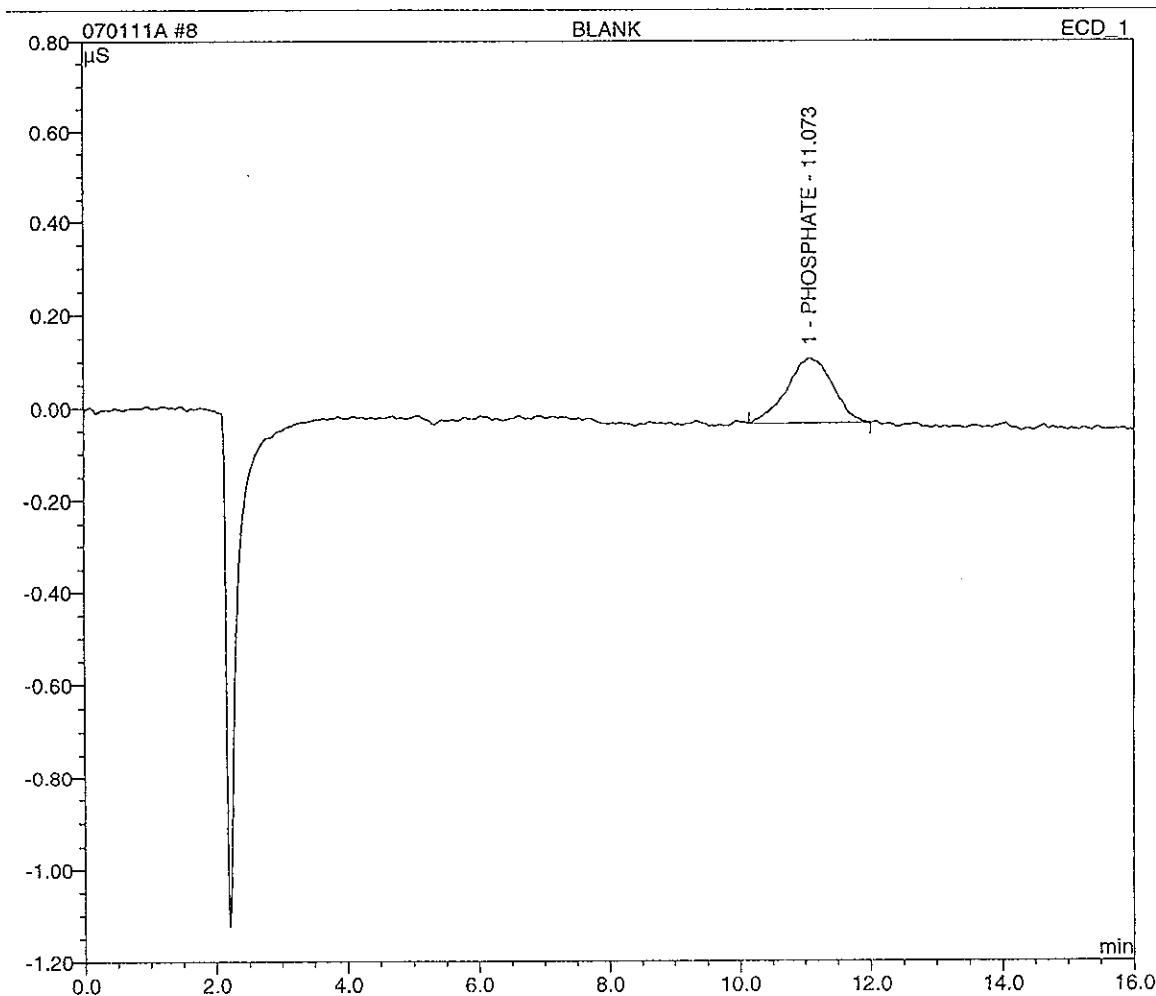
Sequence:	070111A	Inj. Vol.:	100.0
Program:	AS14A PROGRAM	Operator:	n.a.
Inj. Date/Time:	01/09/07 16:39	Run Time:	16.00



No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Corr.Coeff. %
1	3.43	FLUORIDE	X0QOff	6	-0.005	0.166	0.000	99.974
2	5.12	CHLORIDE	X0QOff	6	-0.013	0.131	0.000	99.772
3	6.09	NITRITE	X0QOff	6	-0.003	0.256	0.001	99.969
4	7.82	BROMIDE	XQuad	6	0.000	0.051	0.000	99.978
5	8.79	NITRATE	X0QOff	6	-0.001	0.283	0.002	99.957
6	11.28	PHOSPHATE	X0QOff	6	-0.001	0.108	0.000	99.862
7	13.97	SULFATE	X0QOff	6	0.000	0.090	0.000	99.911
AVERAGE:					-0.0032	0.1549	0.0005	99.9175

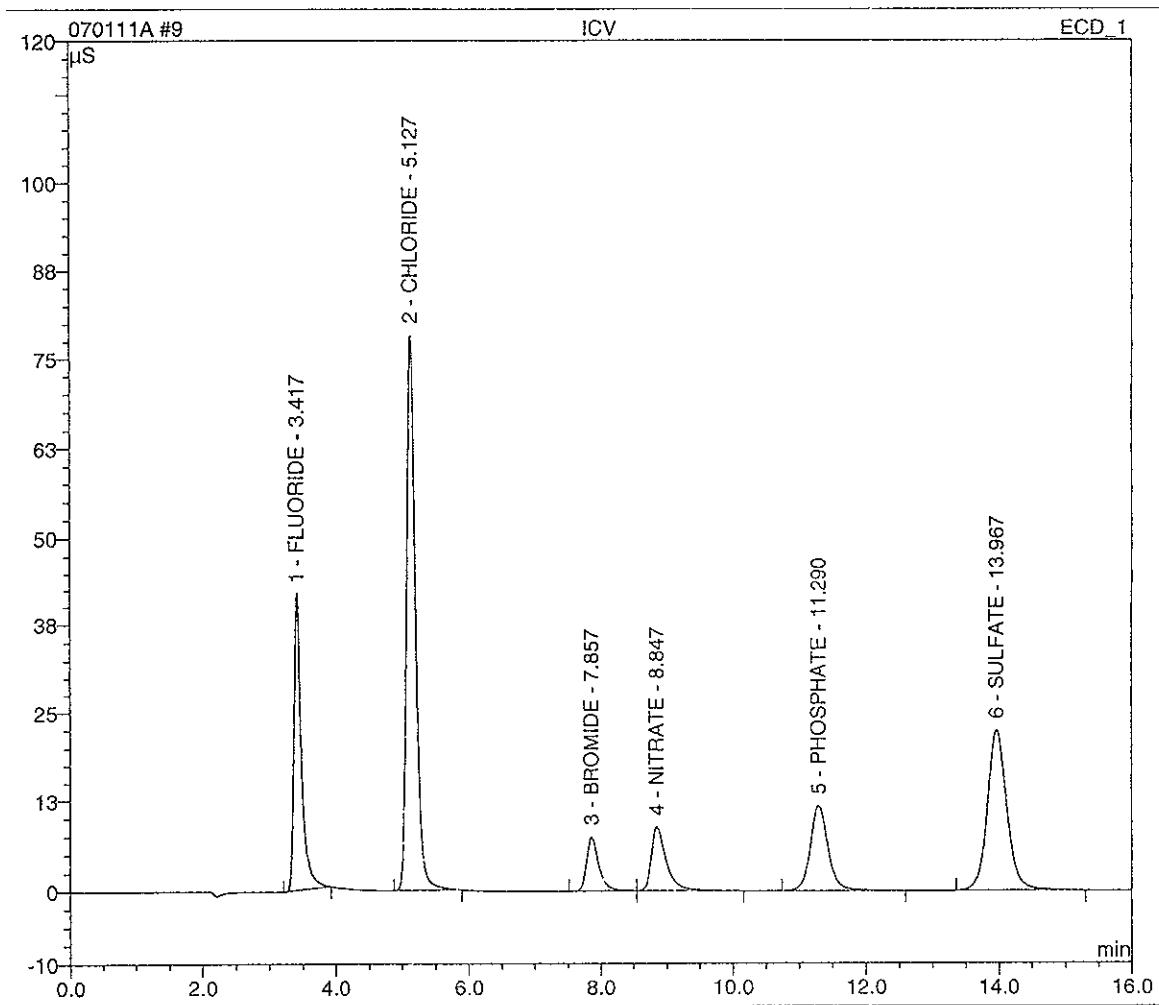
Sample Name:	BLANK	Inj. Vol.:	100.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	11.01.07 11:06	Run Time:	16.00

No.	Time min.	Peak Name	Type	Area μS*min	Height μS	Amount ppm
1	11.07	PHOSPHATE	BMB	0.115	0.141	1.0703
TOTAL:				0.11	0.14	1.07



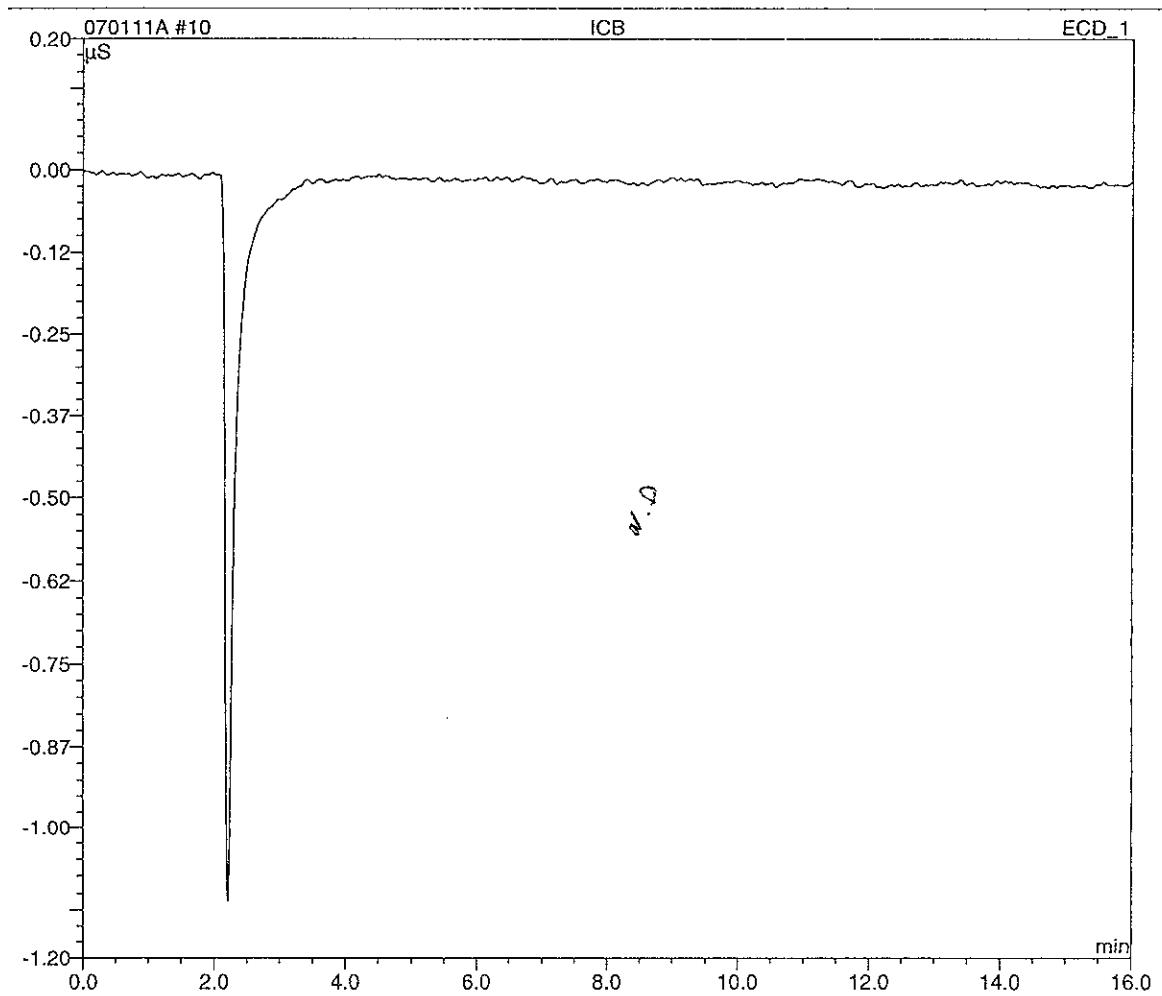
Sample Name:	ICV	Inj. Vol.:	100.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	11.01.07 11:25	Run Time:	16.00

No.	Time min	Peak Name	Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	%	Amount ppm
1	3.42	FLUORIDE	BMB	5.290	41.912	31.0687	1.11
2	5.13	CHLORIDE	BMB	12.099	78.236	78.1369	1K
3	7.86	BROMIDE	BMB	1.604	7.344	30.5422	30
4	8.85	NITRATE	bMB	2.294	8.693	7.6627	1K
5	11.29	PHOSPHATE	BMB	3.606	11.698	30.2919	1K
6	13.97	SULFATE	BMB	7.662	22.343	76.5651	1K
TOTAL:				32.55	170.23		254.27



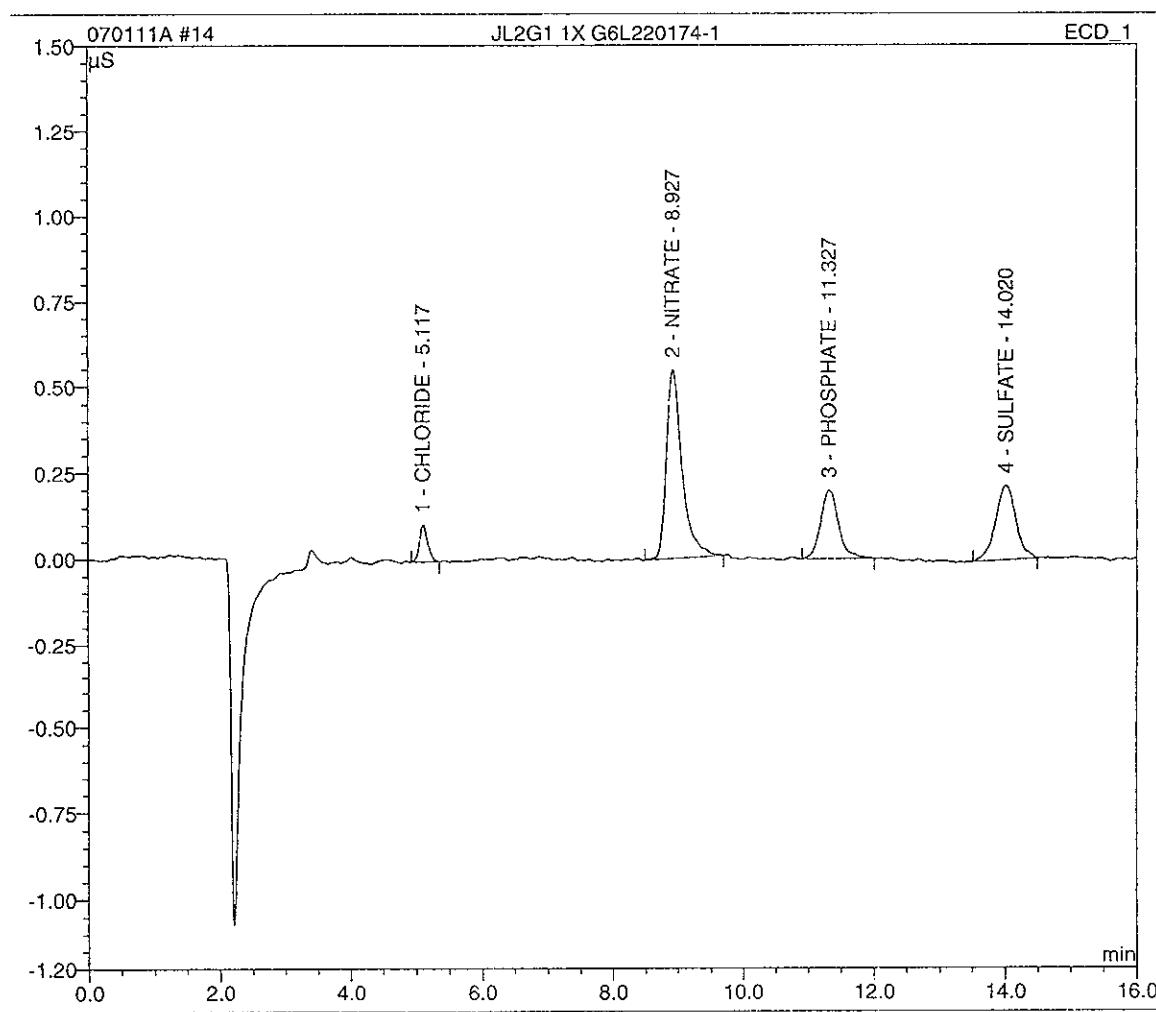
Sample Name:	ICB	Inj. Vol.:	100.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	11.01.07 11:43	Run Time:	16.00

No.	Time min.	Peak Name	Type	Area μS*min	Height μS	Amount ppm
		TOTAL:		0.00	0.00	0.00



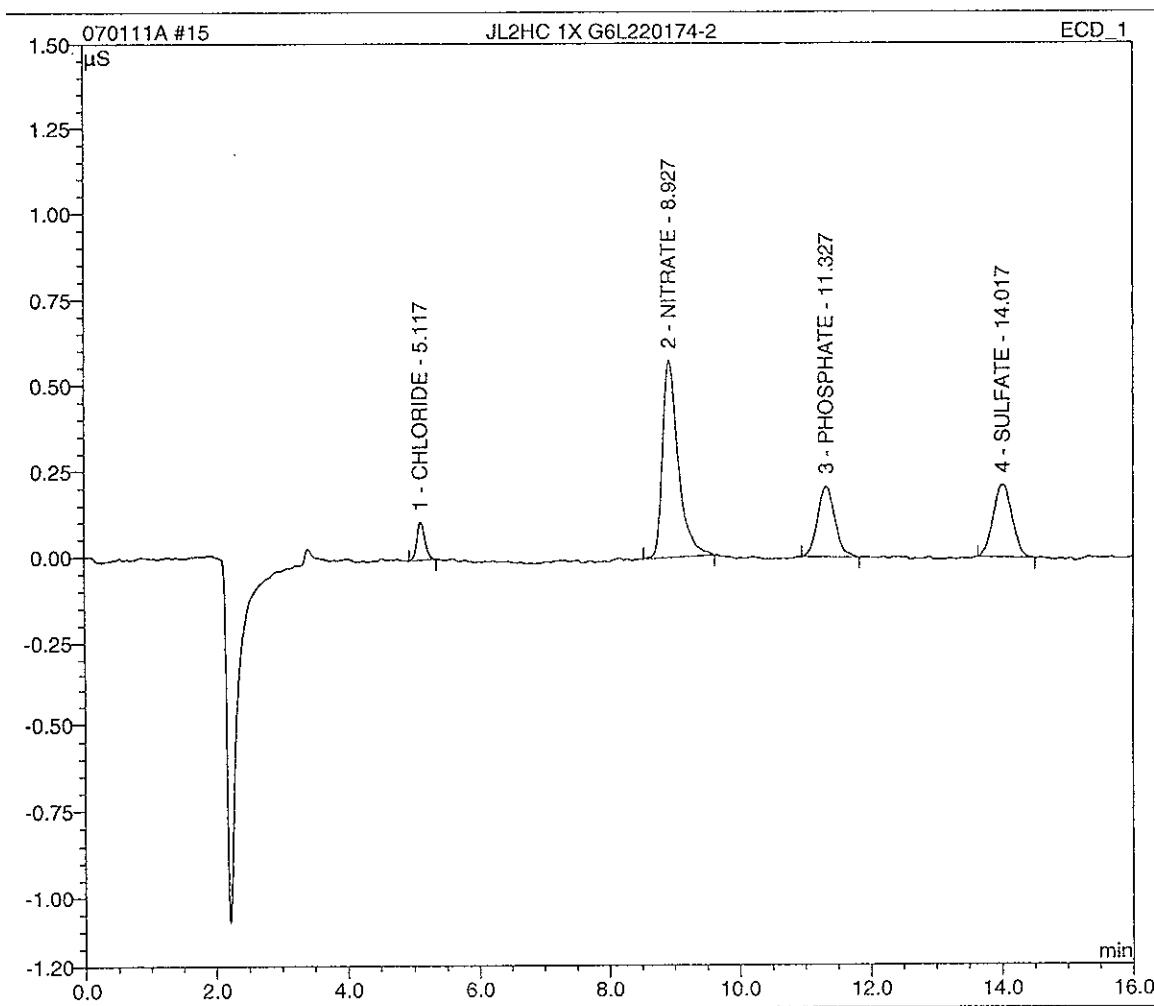
Sample Name:	JL2G1 1X G6L220174-1	Inj. Vol.:	100.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	11.01.07 12:57	Run Time:	16.00

No.	Time min.	Peak Name	Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount ppm
1	5.12	CHLORIDE	BMB	0.016	0.108	0.2212
2	8.93	NITRATE	BMB	0.154	0.547	0.5464
3	11.33	PHOSPHATE	BMB	0.064	0.200	0.6023
4	14.02	SULFATE	BMB	0.078	0.216	0.8578
		TOTAL:		0.31	1.07	2.23



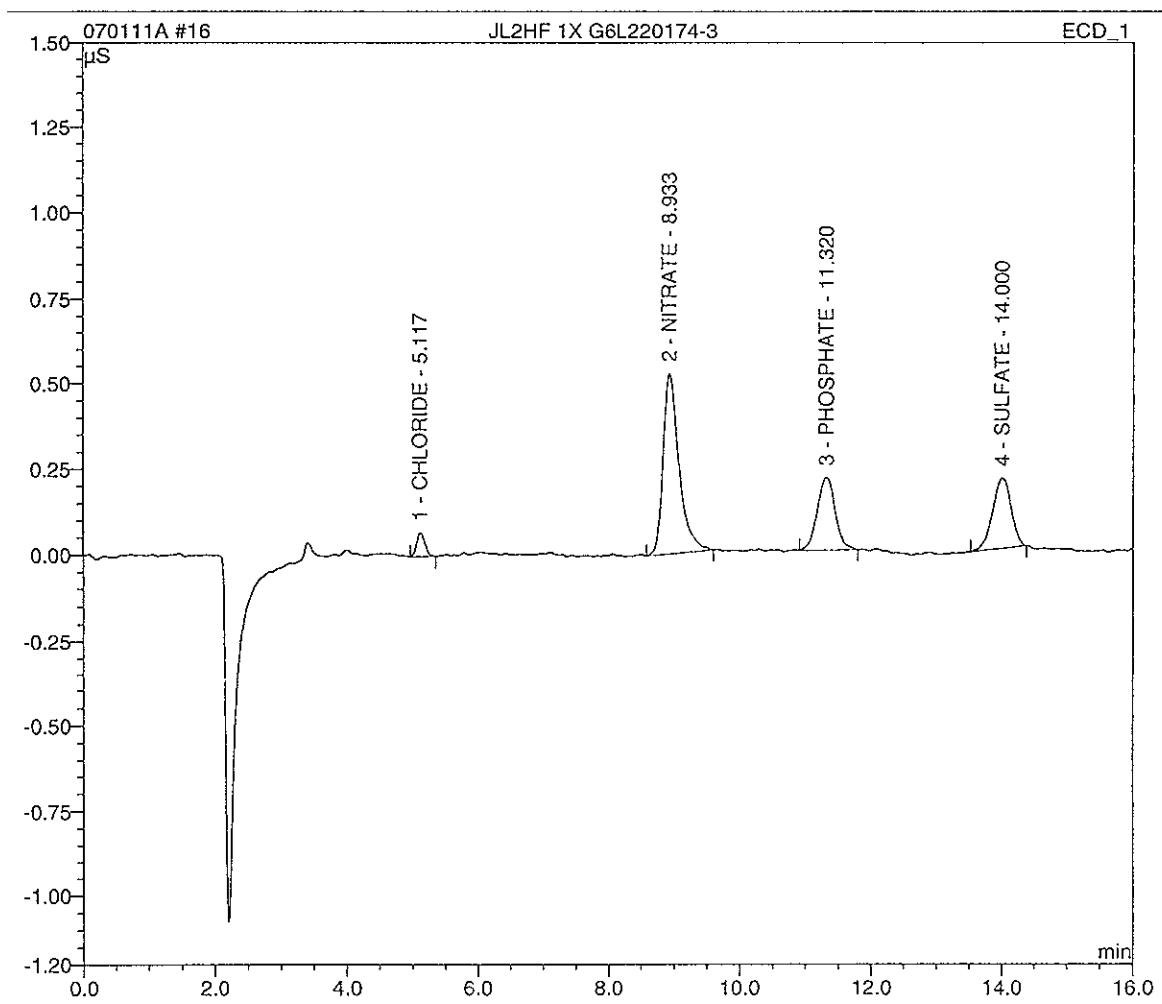
Sample Name:	JL2HC 1X G6L220174-2	Inj. Vol.:	100.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	11.01.07 13:16	Run Time:	16.00

No.	Time min	Peak Name	Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount ppm
1	5.12	CHLORIDE	BMB	0.016	0.112	0.2198
2	8.93	NITRATE	BMB	0.162	0.573	0.5720
3	11.33	PHOSPHATE	BMB	0.064	0.207	0.5987
4	14.02	SULFATE	BMB	0.071	0.212	0.7801
		TOTAL:		0.31	1.10	2.17



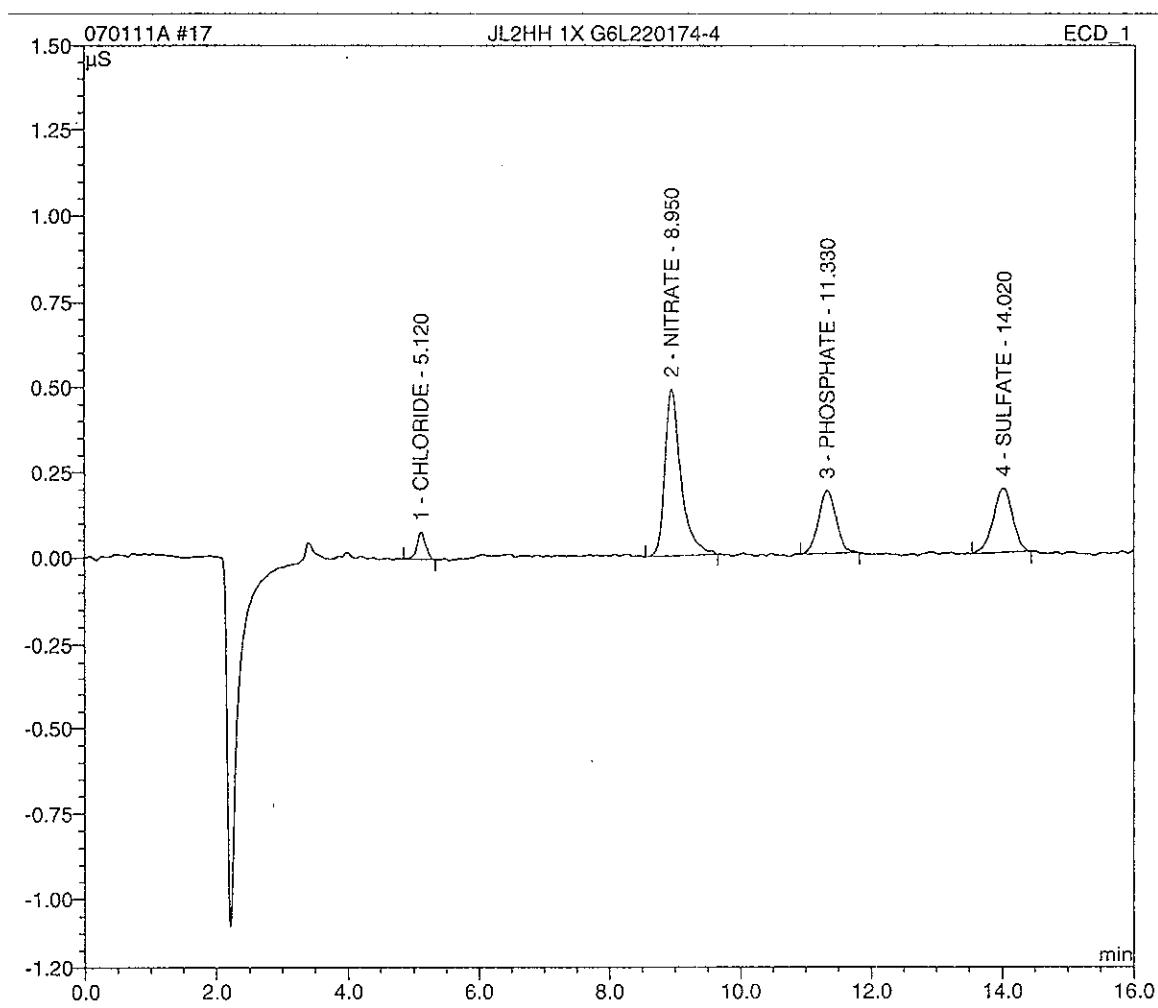
Sample Name:	JL2HF 1X G6L220174-3	Inj. Vol.:	100.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	11.01.07 13:34	Run Time:	16.00

No.	Time min	Peak Name	Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount ppm
1	5.12	CHLORIDE	BMB	0.010	0.070	0.1798
2	8.93	NITRATE	BMB	0.147	0.525	0.5213
3	11.32	PHOSPHATE	BMB	0.067	0.211	0.6273
4	14.00	SULFATE	BMB	0.068	0.205	0.7496
		TOTAL:		0.29	1.01	2.08



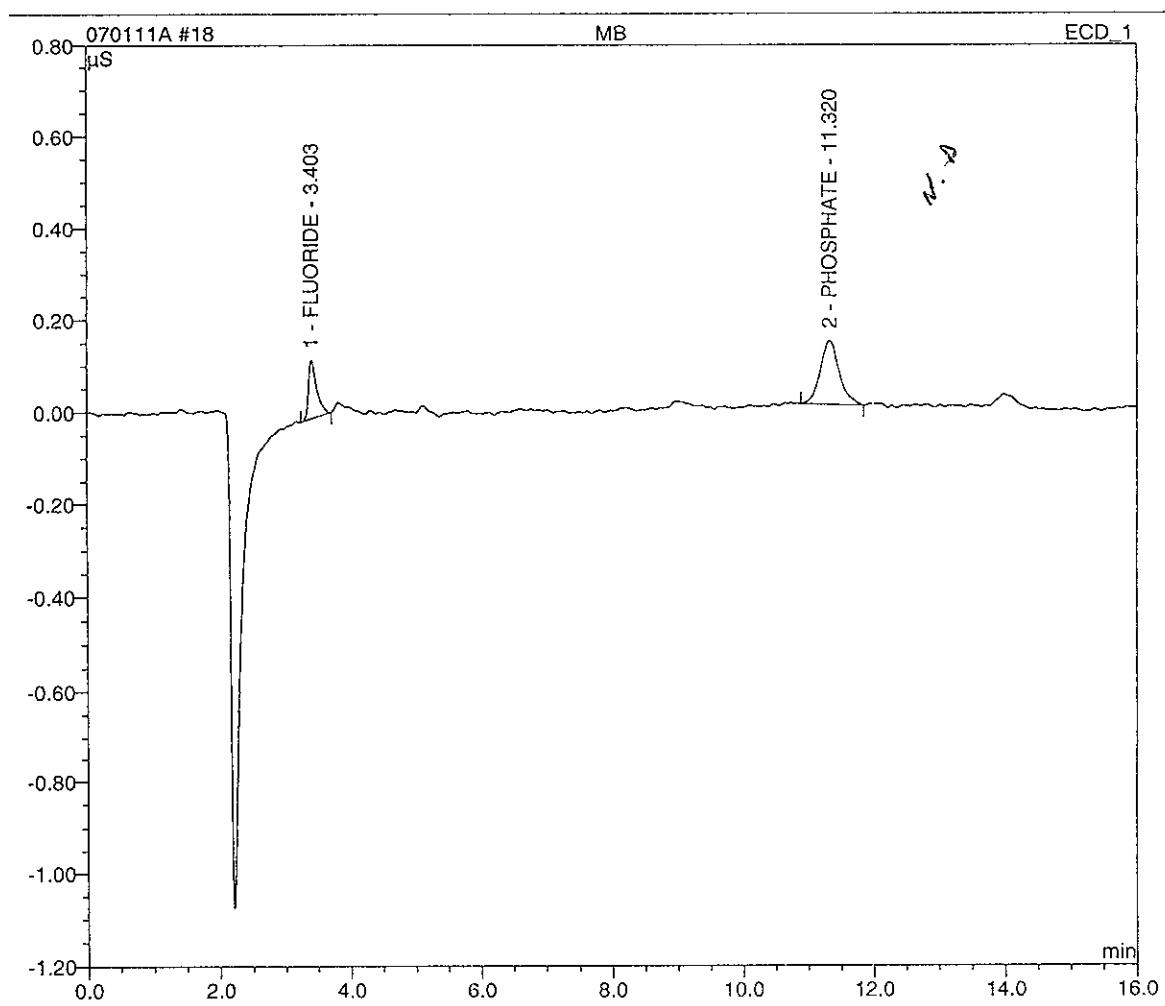
Sample Name:	JL2HH 1X G6L220174-4	Inj. Vol.:	100.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	11.01.07 13:53	Run Time:	16.00

No.	Time min	Peak Name	Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount ppm
1	5.12	CHLORIDE	BMB	0.012	0.079	0.1940
2	8.95	NITRATE	BMB	0.139	0.489	0.4939
3	11.33	PHOSPHATE	BMB	0.058	0.186	0.5414
4	14.02	SULFATE	BMB	0.066	0.190	0.7213
		TOTAL:		0.27	0.94	1.95



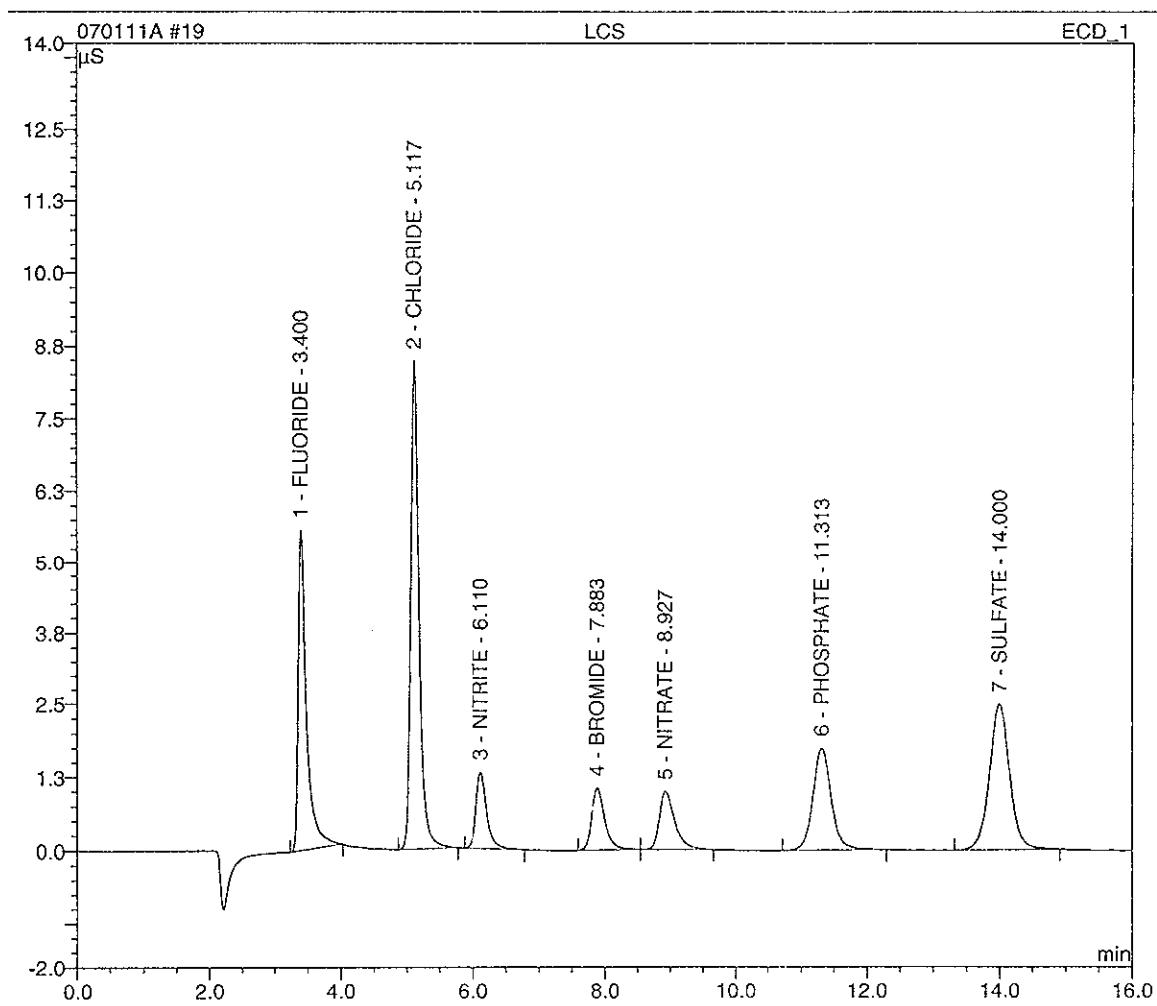
Sample Name:	MB	Inj. Vol.:	100.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	11.01.07 14:11	Run Time:	16.00

No.	Time min	Peak Name	Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount ppm
1	3.40	FLUORIDE	BMB	0.019	0.127	0.1413
2	11.32	PHOSPHATE	BMB	0.046	0.139	0.4337
TOTAL:				0.06	0.27	0.58



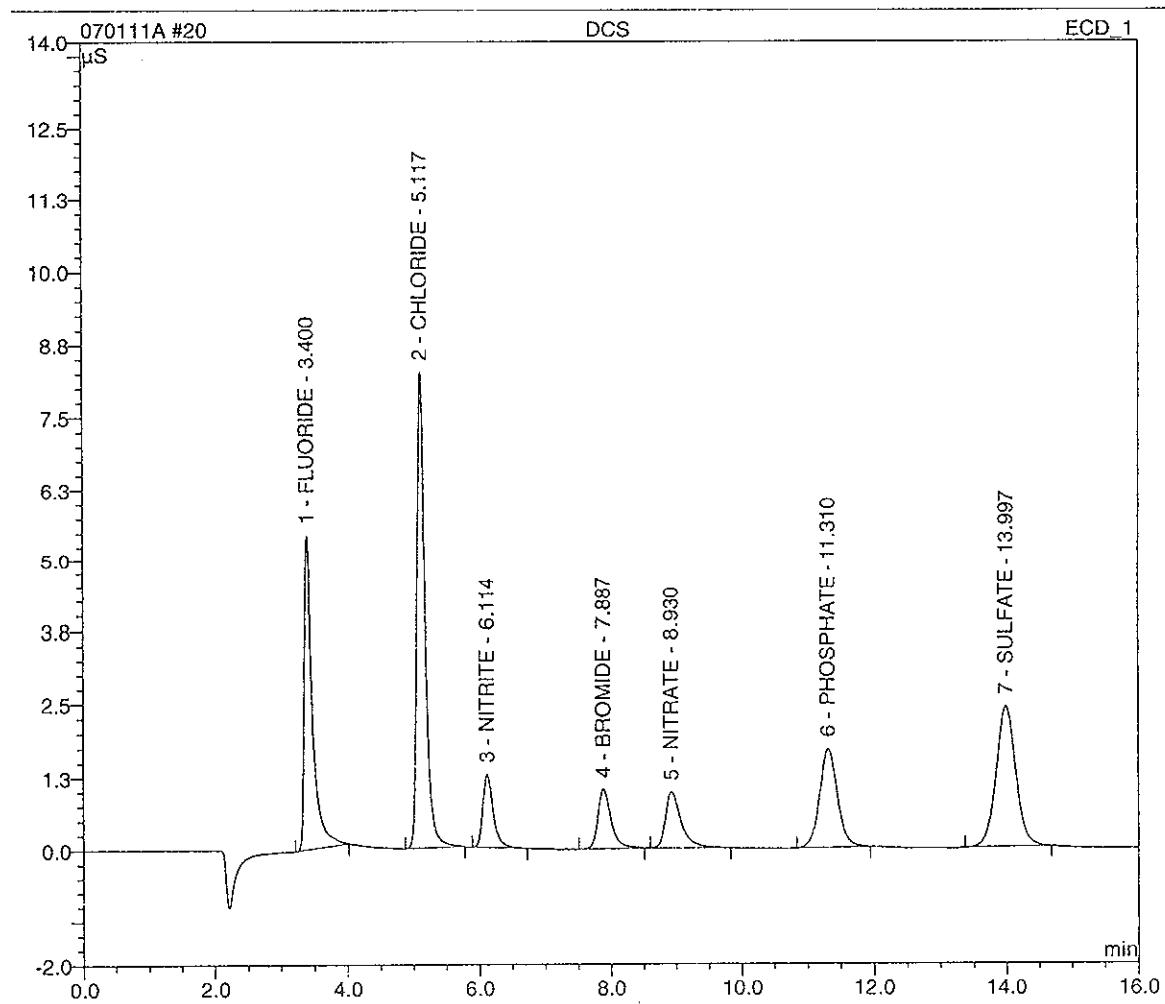
Sample Name:	LCS	Inj. Vol.:	100.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	11.01.07 14:30	Run Time:	16.00

No.	Time min	Peak Name	Type	Area μS/min	Height μS	Amount ppm
1	3.40	FLUORIDE	BMB	0.792	5.581	4.7740
2	5.12	CHLORIDE	BMB	1.232	8.469	9.3290
3	6.11	NITRITE	BMB	0.245	1.308	0.9700
4	7.88	BROMIDE	BMB	0.245	1.060	4.7948
5	8.93	NITRATE	BMB	0.271	0.991	0.9557
6	11.31	PHOSPHATE	BMB	0.566	1.751	5.1732
7	14.00	SULFATE	BMB	0.887	2.489	4.4 9.6854
TOTAL:				4.24	21.65	35.68



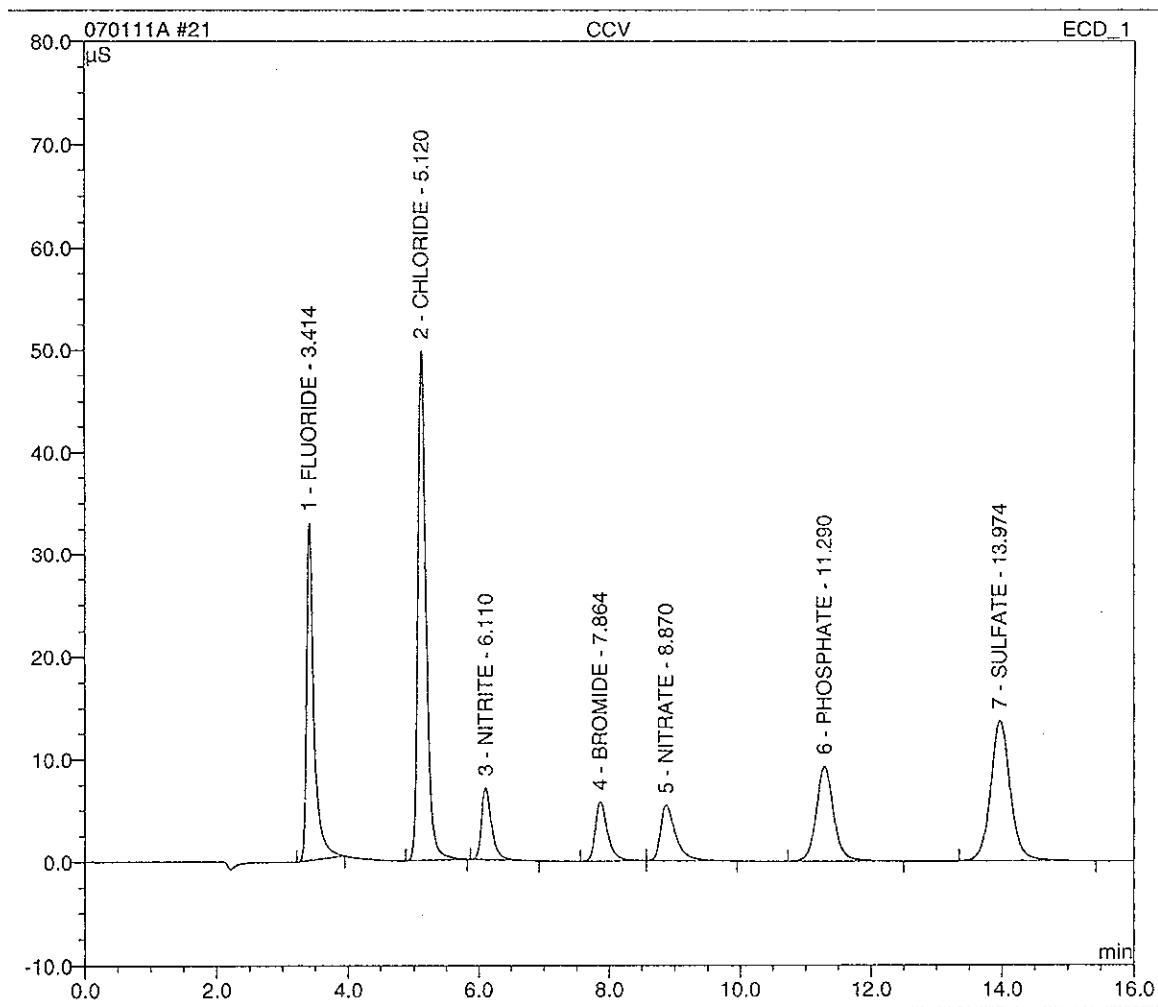
Sample Name:	DCS	Inj. Vol.:	100.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	11.01.07 14:48	Run Time:	16.00

No.	Time min	Peak Name	Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount ppm
1	3.40	FLUORIDE	BMB	0.769	5.449	4.6401
2	5.12	CHLORIDE	BMB	1.196	8.248	9.0638
3	6.11	NITRITE	BMB	0.235	1.267	0.9300
4	7.89	BROMIDE	BMB	0.239	1.030	4.6723
5	8.93	NITRATE	BMB	0.271	0.968	0.9549
6	11.31	PHOSPHATE	BMB	0.536	1.703	4.8978
7	14.00	SULFATE	BMB	0.845	2.411	9.2297
TOTAL:				4.09	21.08	34.39



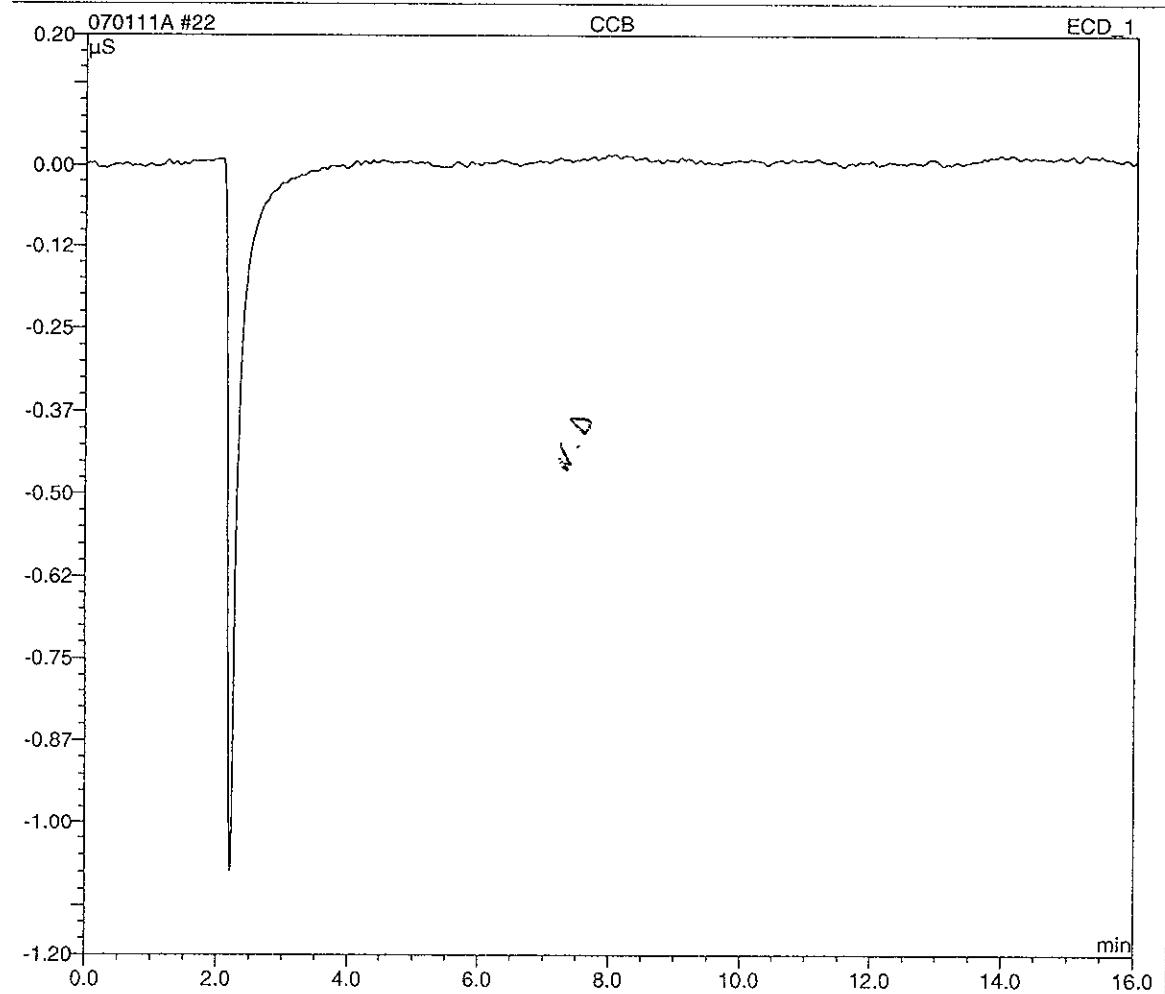
Sample Name:	CCV	Inj. Vol.:	100.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	11.01.07 15:07	Run Time:	16.00

No.	Time min	Peak Name	Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	Amount ppm
1	3.41	FLUORIDE	BMB	4.197	32.935	24.7801
2	5.12	CHLORIDE	BMB	7.342	49.782	50.2846
3	6.11	NITRITE	BMB	1.274	7.070	4.9465
4	7.86	BROMIDE	Bmb	1.281	5.788	24.5400
5	8.87	NITRATE	bMB	1.448	5.419	4.9345
6	11.29	PHOSPHATE	BMB	2.880	9.246	24.6359
7	13.97	SULFATE	BMB	4.771	13.722	49.3785
TOTAL:				23.19	123.96	163.50



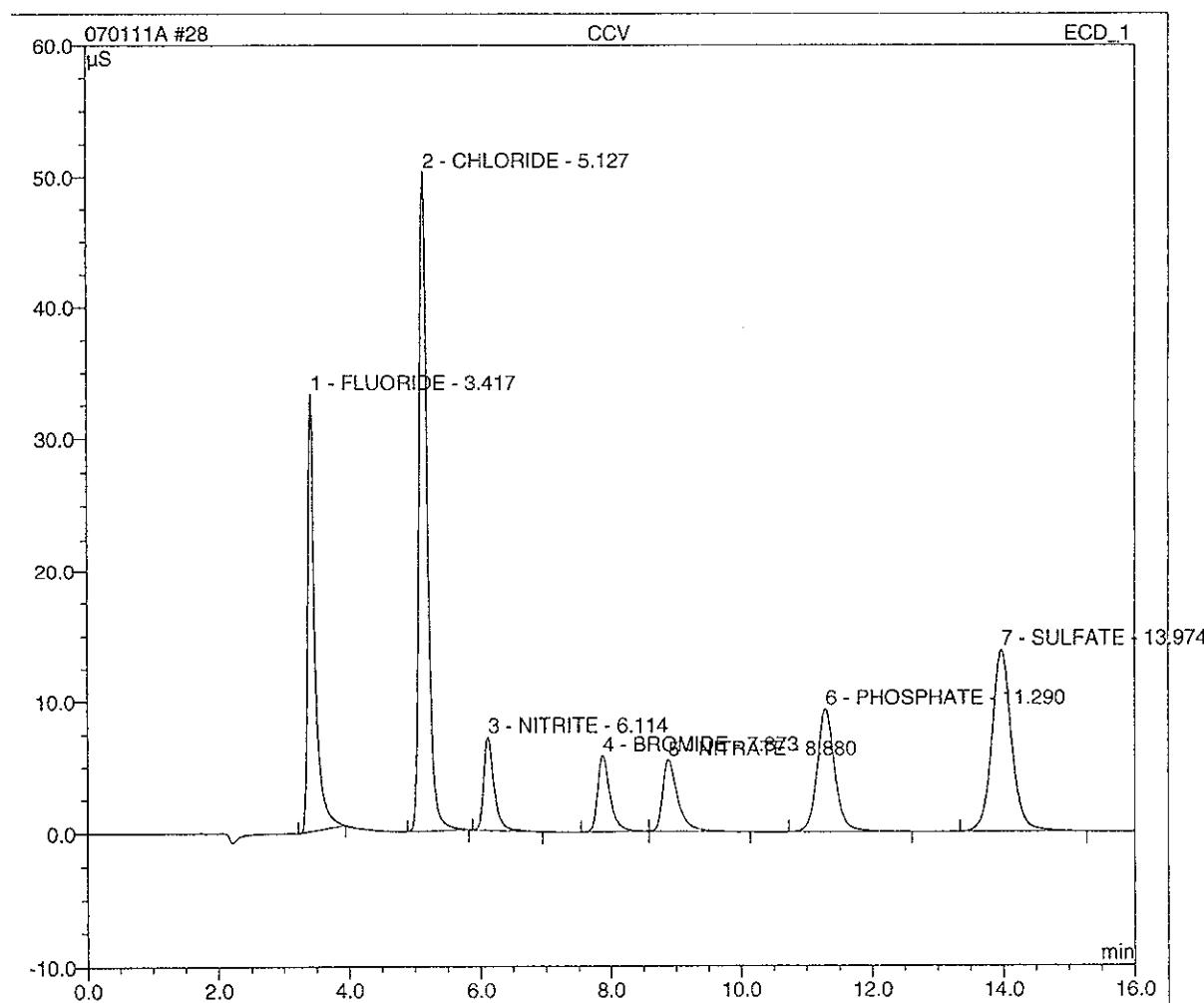
Sample Name:	CCB	Inj. Vol.:	100.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	11.01.07 15:25	Run Time:	16.00

No.	Time min	Peak Name	Type	Area μS*min	Height μS	Amount ppm
		TOTAL:		0.00	0.00	0.00



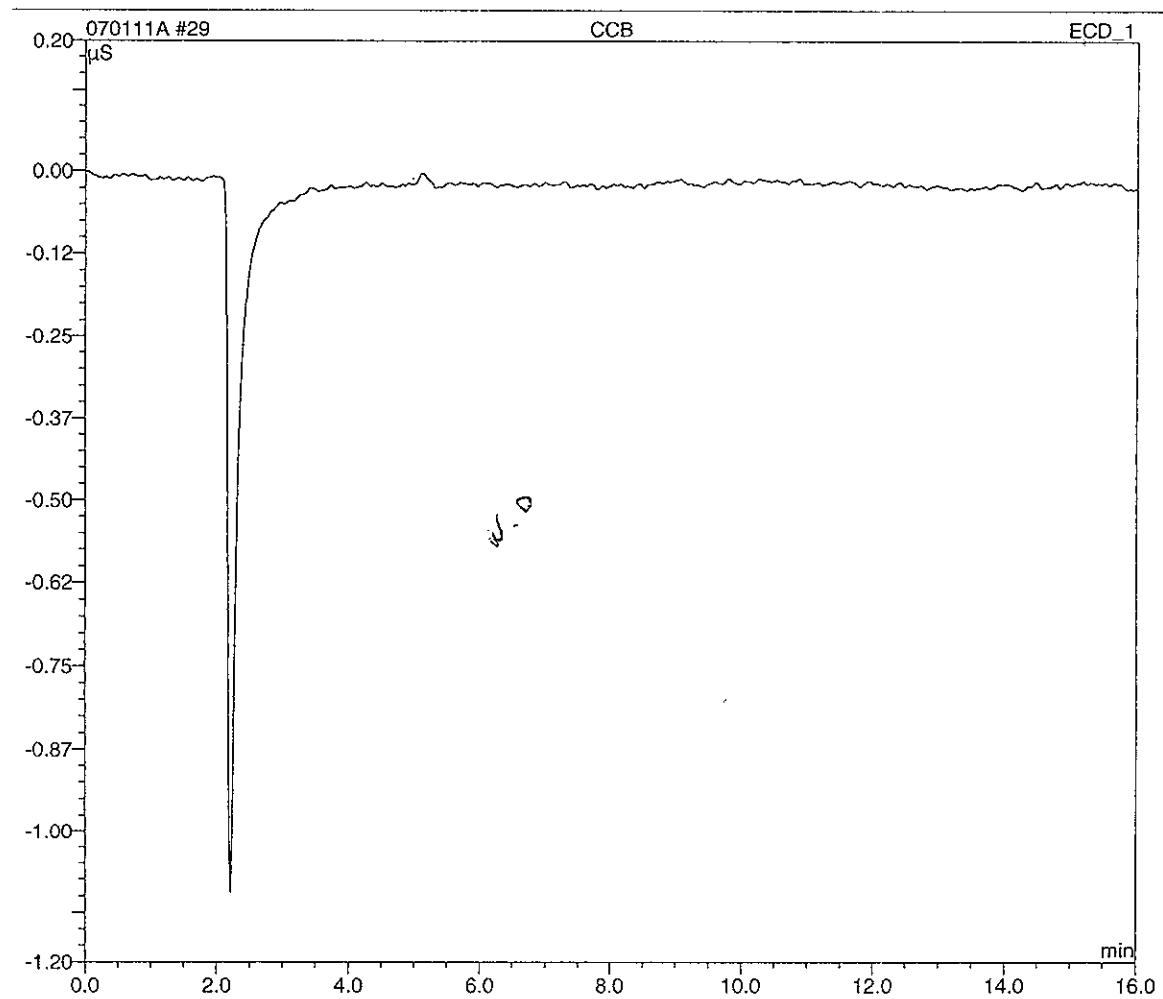
Sample Name:	CCV	Inj. Vol.:	100.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	11.01.07 17:16	Run Time:	16.00

No.	Time min	Peak Name	Type	Area $\mu\text{S} \cdot \text{min}$	Height $\mu\text{S}$	%	Amount ppm
1	3.42	FLUORIDE	BMB	4.229	33.253		24.9670
2	5.13	CHLORIDE	BMB	7.422	50.279	100	50.7761
3	6.11	NITRITE	BMB	1.296	7.142		5.0284
4	7.87	BROMIDE	Bmb	1.295	5.847	14	24.7991
5	8.88	NITRATE	bMB	1.462	5.467		4.9791
6	11.29	PHOSPHATE	BMB	2.908	9.340		24.8531
7	13.97	SULFATE	BMB	4.814	13.879	100	49.7966
TOTAL:				23.42	125.21		185.20



Sample Name:	CCB	Inj. Vol.:	100.0
Sample Type:	unknown	Dilution Factor:	1.0000
Program:	AS14A PROGRAM	Operator:	ounis
Inj. Date/Time:	11.01.07 17:35	Run Time:	16.00

No.	Time min	Peak Name	Type	Area μS*min	Height μS	Amount ppm
		TOTAL:		0.00	0.00	0.00



# AIR, PM-10 & TSP

RQC050

Severn Trent Laboratories, Inc.  
WET CHEM BATCHSHEETRun Date: 1/09/07  
Time: 11:36:38

STL Sacramento

## PRODUCTION FIGURES - WET CHEM

TOTAL <u>NUMBER</u>	SAMPLE <u>NUMBER</u>	RE-RUN <u>QC</u>	RE-RUN <u>MATRIX</u>	MISC <u>OTHER</u>	TOTAL <u>HOURS</u>	EXPANDED <u>DELIVERABLE</u>

METHOD: AO Particulates in Air, Suspended "TSP HiVol" (APP B)  
 QC BATCH #: 7009217 INITIALS: SD DATA ENTRY: SD  
 PREP DATE: 1/04/07 14:11 PREP SD INITIALS: SD  
 COMP DATE: 1/08/07 9:45 ANAL SD DATE 1/09  
 USER: VALMORES

Work Order	Lab Number	Structured Analysis	Exp. Del.	Analysis Date	Sample ID:
JL2HH-1-AA	G-6L220174-004	XX S 88 AO 3W	Y-D	<u>1/09/07</u>	000585

Control Limits

**PARTICULATE ANALYSIS**

**LEVEL 1 & 2 REVIEW CHECKLIST**

LAB NUMBERS: G6L220174-4 Batch #: 7009217

ANALYSIS: (circle) TSP/PM10 or METHOD 5

DATE: 1/9/07 ANALYST: S. Almored

**LEVEL 1 ANALYSIS REVIEW**

1. Samples are in good condition.
2. Sample filter number matches the folder or petri ID number.
3. Desiccator temperature and % humidity criteria in control.
4. Balance calibration criteria met.
5. Beginning and ending calibration sample bracket weights are in calibration.
6. Samples reached stable weight.
7. Samples exceeded 5 consecutive final weighings.

YES	NO	NA
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**LEVEL 1 DATA REVIEW**

1. Benchsheet is complete.
2. QAS or QAPP consulted and followed for client specifics.
3. Data entered in properly.
4. Copy of spreadsheet or logbook raw data entry attached to data package.
5. Analyst observations, HTV's, Anomalies properly documented and attached to data package.

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Completed By & Date: SA 1/9/07

**LEVEL 2 REVIEW:**

1. Level 1 checklist complete and verified.
2. Deviations, Anomalies, Holding times checked and approved.
3. Reanalysis documented and chemist notified.
4. Client specific criteria met.
5. Data entry checked and released in Quantims.
6. Indication on benchsheet or spreadsheet on review and released (dated & signed).

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Completed By & Date: SA 1/9/07

Comments: des 1B

Severn Trent Laboratories  
AIR TOXICS GRAVIMETRIC ANALYSES

WEST SACRAMENTO

Lab ID	Filter ID	Initial Weight (g) date/time initials	Initial Weight (g) date/time initials	Final Weight (g) date/time initials	Wt of Particulate (g)			
5 g wt	5.0001	5.0000	4.9997	4.9999	4.9997	4.9995	4.9995	-0.0005
JJ573	bctsp110206-576	110206skv1546	110306skv1213	010407skv1411	010507skv1128	010707skv1728	010807skv0944	0.0221
	bctsp110206-577	4.3116	4.3119	4.3360	4.3340	4.3340		
	bctsp110206-578	110206skv1547	110306skv1214	112806skv1615	112906skv1728	113006skv1607		
JJ8VV	bctsp110206-579	4.3083	4.3083					NC
JKRXE	bctsp110206-580	4.2968	4.2971	4.3341	4.3309	4.3307		0.0336
	bctsp110206-581	110206skv1547	110306skv1214	112806skv1616	112906skv1729	113006skv1608		0.0368
JLVQ4	bctsp110206-582	4.3084	4.3085	4.3466	4.3452	4.3453		
JLVVM	bctsp110206-583	110206skv1548	110306skv1215	120706skv1022	120806skv1003	121106skv1017		
JLVRQ	bctsp110206-584	4.3133	4.3138	4.3601	4.3600			0.0462
	bctsp110206-585	110206skv1548	110306skv1215	122106skv1741	122206skv1104			0.0540
JL2HC	bctsp110206-586	4.2951	4.2955	4.3495	4.3495			
JL2HF	bctsp110206-587	110206skv1549	110306skv1216	122106skv1742	122206skv1105			0.0441
	bctsp110206-588	4.2959	4.2964	4.3410	4.3405			
JL2HH	bctsp110206-589	4.2910	4.2915	4.2982	4.2933	4.2960	4.2955	0.0040
	bctsp110206-590	110206skv1549	110306skv1217	010407skv1411	010507skv1129	010707skv1730	010807skv0944	
	bctsp110206-591	4.2971	4.2971	4.3054	4.3026	4.3031		0.0060
JL2HH	bctsp110206-592	4.2785	4.2790	4.2895	4.2871	4.2868		0.0078
	bctsp110206-593	110206skv1550	110306skv1218	010407skv1412	010507skv1130	010707skv1731		
	bctsp110206-594	110206skv1550	110306skv1217	010407skv1412	010507skv1129	010707skv1730		
	bctsp110206-595	4.9997	5.0000	4.9998	5.0002	5.0001		0.0001
	bctsp110206-596	5 g wt	5.0000	5.0000	4.9995	5.0001		-0.0005
	bctsp110206-597	4.9997	5.0000	4.9995	4.9998	4.9998		-0.0002
	bctsp110206-598	5 g wt	5.0000	5.0000	5.0000	5.0000		-0.0005

PDE115

Severn Trent Laboratories, Inc.  
Inorganics Batch Review  
QC Batch 7009217

Date 1/17/2007  
Time 8:20:10

Method Code:AO Particulates in Air, Suspended "TSP HiVol" (APP B)  
Analyst: Steve Valmores

Work Order	Result	Units	LDL/Dil	Prep - Anal	Total Solids	PSRL N	Flag	R/R	Rounded Result	Output LDL
JLZHH-T-AA	0.0078	g	0.0001	01/04-01/07/07	.00	.00			0.0078	0.0001

Notes:

TEST	TOTAL #	SAMPLE #	PRODUCTION QC #	TOTALS MATRIX #	OTHER #	MLSC #	HOURS
	0	0	0	0	0	0	.0

RQC050

Severn Trent Laboratories, Inc.  
WET CHEM BATCHSHEET

Run Date: 1/09/07

Time: 11:37:29

STL Sacramento

## PRODUCTION FIGURES - WET CHEM

<u>TOTAL NUMBER</u>	<u>SAMPLE NUMBER</u>	<u>QC</u>	<u>RE-RUN MATRIX</u>	<u>RE-RUN OTHER</u>	<u>MISC NUMBER</u>	<u>TOTAL HOURS</u>	<u>EXPANDED DELIVERABLE</u>

METHOD: JR Particulate Matter as PM10 "PM10 HiVol" (CFR50-J)  
 QC BATCH #: 7009219 INITIALS: DATA ENTRY:  
 PREP DATE: 1/04/07 14:08 PREP SV INITIALS SV  
 COMP DATE: 1/08/07 9:31 ANAL SV DATE 1/09/07  
 USER: VALMORES

<u>Work Order</u>	<u>Lab Number</u>	<u>Structured Analysis</u>	<u>Exp. Del.</u>	<u>Analysis Date</u>	<u>Sample ID:</u>
✓ JL2G1-1-AA	G-6L220174-001	XX S 88 JR 01	Y-D	1/8/07	P-0825
✓ JL2HC-1-AA	G-6L220174-002	XX S 88 JR 01	Y-D	1/8/07	000583
✓ JL2HF-1-AN	G-6L220174-003	XX S 88 JR 01	Y-D	1/7/07	000584

Control Limits

**STL Sacramento**  
**Air Toxics Laboratory**

**SEVERN**  
**TRENT**

**STL**

*RFW*

**PARTICULATE ANALYSIS**

**LEVEL 1 & 2 REVIEW CHECKLIST**

LAB NUMBERS: G6L220174 - 1-3 Batch #: 700929

ANALYSIS: (circle) TSP/PM10 or METHOD 5

DATE: 1/9/07

ANALYST: D Valmores

**LEVEL 1 ANALYSIS REVIEW**

1. Samples are in good condition.
2. Sample filter number matches the folder or petri ID number.
3. Desiccator temperature and % humidity criteria in control.
4. Balance calibration criteria met.
5. Beginning and ending calibration sample bracket weights are in calibration.
6. Samples reached stable weight.
7. Samples exceeded 5 consecutive final weighings.

YES	NO	NA
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**LEVEL 1 DATA REVIEW**

1. Benchsheet is complete.
2. QAS or QAPP consulted and followed for client specifics.
3. Data entered in properly.
4. Copy of spreadsheet or logbook raw data entry attached to data package.
5. Analyst observations, HTV's, Anomalies properly documented and attached to data package.

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Completed By & Date: SV 1/9/07

**LEVEL 2 REVIEW:**

1. Level 1 checklist complete and verified.
2. Deviations, Anomalies, Holding times checked and approved.
3. Reanalysis documented and chemist notified.
4. Client specific criteria met.
5. Data entry checked and released in Quantims.
6. Indication on benchsheet or spreadsheet on review and released (dated & signed).

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Completed By & Date: SV 1/17/07

Comments: des 1b

Severn Trent Laboratories  
AIR TOXICS GRAVIMETRIC ANALYSES

WEST SACRAMENTO

Lab ID	Filter ID	Initial Weight (g) date/time initials	Initial Weight (g) date/time initials	Final Weight (g) date/time initials	Wt of Particulate (g)			
	5 g wt	4.9995	4.9997	4.9997	5.0003	4.9996	4.9996	-0.0001
JLVRF	bcpm110206-821	110206skv1610	110306skv1236	010407skv1408	010507skv1126	010707skv1726	010807skv0929	0.0057
JLVRL	bcpm110206-822	110206skv1610	110306skv1237	122106skv1751	122206skv1113			0.0157
	bcpm110206-823	110206skv1611	110306skv1237	122106skv1751	122206skv1113			NC
JLVRN	bcpm110206-824	110206skv1611	110306skv1238	122106skv1752	122206skv1114			-0.0074
JL2G1	bcpm110206-825	110206skv1612	110306skv1239	010407skv1409	010507skv1127	010707skv1728	010807skv0931	-0.0037
	5 g wt	110206skv1612	110306skv1239	122106skv1753	122206skv1114			0.0005
	5 g wt	110206skv1612	110306skv1239	010407skv1409	010507skv1128	010707skv1728	010807skv0931	0.0009

Severn Trent Laboratories  
AIR TOXICS GRAVIMETRIC ANALYSES

WEST SACRAMENTO

Lab ID	Filter ID	Initial Weight (g) date/time initials	Initial Weight (g) date/time initials	Final Weight (g) date/time initials	Wt of Particulate (g)			
JJ573	5 g wt	5.0001	5.0000	4.9997	4.9999	4.9997	4.9995	-0.0005
JL2HC	bctsp110206-576	4.3116	4.3119	4.3360	4.3340	4.3340	4.3340	0.0221
JL2HF	bctsp110206-577	4.3083	4.3083					NC
JJ8VV	bctsp110206-578	4.2968	4.2971	4.3341	4.3309	4.3309	4.3307	0.0336
JLRXE	bctsp110206-579	4.3084	4.3085	4.3466	4.3452	4.3452	4.3453	0.0368
JLVQ4	bctsp110206-580	4.3133	4.3138	4.3601	4.3600	4.3600		0.0462
JLVVM	bctsp110206-581	4.2951	4.2955	4.3495	4.3495	4.3495		0.0540
JLVRQ	bctsp110206-582	4.2959	4.2964	4.3410	4.3405	4.3405		0.0441
JL2HH	bctsp110206-583	4.2910	4.2915	4.2982	4.2933	4.2960	4.2955	0.0040
JL2HF	bctsp110206-584	4.2971	4.2971	4.3054	4.3026	4.3026		0.0060
JL2HH	bctsp110206-585	4.2785	4.2790	4.2895	4.2871	4.2868		0.0078
	5 g wt	4.9997	5.0000	4.9998	5.0002	5.0002		0.0001
	5 g wt	4.9997	5.0000	5.0000	4.9995	5.0001		-0.0005
	5 g wt	4.9997	5.0000	4.9995	4.9998	4.9998		-0.0002
	5 g wt	4.9997	5.0000	5.0002	5.0000	4.9998	4.9995	-0.0005

7009219  
7/17/07 62  
Page 2 Batch#: 117/07

PDE115

Severn Trent Laboratories, Inc.  
 Inorganics Batch Review  
 QC Batch 7009219

Date 1/17/2007  
 Time 8:12:57

Method Code:JR Particulate Matter as PM10 "PM10 Hivol" (CFR50-J)  
 Analyst:Steve Valmores

Work Order	Order	Result	Units	LDL/Dil	Prep.	Anal.	Total Solids	PSRL	Rounded Result	Output	Dil.
JL2G1-1-AA	ND	ND	g	0.0001	01/04-01/08/07		.00	N	ND	0.0001	1.00
JL2HC-1-AA	0 . 0 0 4 0	g		0 . 0 0 0 1	01/04-01/08/07		.00	N	R	0 . 0 0 4 0	1 . 0 0
JL2HF-1-AN	0 . 0 0 6 0	g		0 . 0 0 0 1	01/04-01/07/07		.00	N	R	0 . 0 0 6 0	1 . 0 0

Notes:

TEST	TOTAL #	SAMPLE #	PRODUCTION TOTALS	QC #	MATRIX #	OTHER #	MISC #	HOURS
	0	0	0	0	0	0	0	.0